

# The Mining Journal,

## RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1054—Vol. XXV.]

LONDON, SATURDAY, NOVEMBER 3, 1855.

STAMPED .....SIXPENCE.  
UNSTAMPED...FIVEPENCE.

### THE MINING EXCHANGE OF LONDON.

GRESHAM HOUSE, OLD BROAD STREET.

The following are the MEMBERS who have SUBSCRIBED to the RULES:—

**J. Y. WATSON, F.G.S.—CHAIRMAN** (Firm of Watson and Cuell).  
**W. BAWDEN.**  
**W. H. CUELL.**  
**E. Gompers.**  
**J. H. Hithcocks.**  
**G. Kieckhefer.**  
**J. L. Lane.**  
**B. Lambert.**  
**C. Martin.**  
**Wm. Michell.**  
**J. H. Murchison, F.G.S.**  
**Adam Murray, F.G.S.**  
**N. F. WATSON, Hon. Sec.**

### MINING EXCHANGE OF LONDON.

Parties desirous of becoming MEMBERS from the MICHAELMAS QUARTER, may learn the terms of admission from the secretary.

By order of the Committee, N. F. WATSON, Hon. Sec.

### MR. JAMES CROFTS, MINING BROKER,

10, FINCH LANE, CORNHILL, LONDON, TRANSACTS BUSINESS,

IN BUYING AND SELLING, for immediate cash.

DIVIDEND MINES, well selected, are the best of any known investments—paying from 15 to 20 per cent. per annum in dividends. The choice of NON-DIVIDEND MINES for speculation requires careful discrimination.

Mr. Crofts is a BUYER of the following:—Alfred Consols, Devon Burra Bank, Bedford United, South Tamar, Wh. Wrey, Wh. Franco, Okel Tor, Sortridge Consols, Lyridge, North Basset, West Basset, Lamhrooc, Trewhetha, Lady Bertha, Devon West Basset, East Russell, West Russell, West Collacombe, Wheal Arthur, Rose- wane, Wheal Grenville, Union Tin, Wheal Comfort.

MR. JAMES LANE, No. 29, THREADNEEDLE STREET, is

a BUYER of Sortridge, West France, West Providence, Wheal Kitty (Lelant and St. Agnes), Trelawny, Lady Bertha, Mary Ann, East Russell, Alfred Consols, and is prepared to DEAL in most of the DIVIDEND and LEADING MINES.

Nov. 2, 1855.

### MR. JAMES B. BRENCHLEY, SHARE DEALER, 2, PINNER'S

COURT, OLD BROAD STREET, has FOR SALE SHARES in the BEST

DIVIDEND and PROGRESSIVE MINES only. Amongst others—

1 Wheal Buller. 20 South Tamar. 5 West France.

10 Alfred. 10 Kitty (Lelant). 10 Great Alfred.

10 South Basset. 4 West Damsel. 2 East Basset.

10 North Basset. 10 South France. 20 Wheal Grenville.

10 Wheal Edward. 10 Wheal Charlotte. 10 Cliffland and Wentworth.

10 Corn Brea. 5 Wheal Charlotte. 10 South Garsa.

20 Wheal Wrey. 5 Gonaema. 1 South Garsa.

PURCHASES and SALES EFFECTED in every description of RAILWAY, IN-

SURANCE, and OTHER SECURITIES.

To these seeking investment in mines, every information, personally or letter, will

be afforded; at the present time, a judicious selection is the more necessary, as many

very questionable undertakings are being brought before the public.

Mr. Brenchley, being a Member of the Mining Exchange, will forward a list of

mines, on receipt of stamped addressed envelope; and PUBLISHES WEEKLY a

CIRCULAR, containing latest particulars of prices, and much desirable information.

### MR. PETER WATSON begs to inform his friends and gentlemen

connected with English and foreign mines, that he has returned from Cam-

bridge, Cornwall, where he has been residing for the past 12 months, and has now

COMMENCED BUSINESS of SHAREDEALER and GENERAL COMMISSION

AGENT, at 37, OLD BROAD STREET, LONDON.

The past eleven years' experience which he has had in every department of mining,

and an extensive connection with mine agents and others in Cornwall and Devon,

enable him to judge of, and select mines of intrinsic value.

The present period offers great advantages for investment in carefully selected mines,

certainty of success and profit to the embarkment of capital may be relied on.

Mr. Peter Watson will at all times be glad to afford every information; and pur-

chase and sell shares on the usual commission, to which the most careful attention

shall be paid.—37, Old Broad-street, London, Nov. 2, 1855.

### MINING SHARES.—GEORGE SPATLEY will be happy to

FORWARD his LIST of DIVIDEND and PROGRESSIVE MINES, that

holders desirable investments at the present moment. Holders of shares will

be advised when to BUY and when to SELL, in accordance with the market value,

or progressive improvement of the mine.

By order of the Committee, N. F. WATSON, Hon. Sec.

### MR. LELEAN, 4, CUSHION COURT, OLD BROAD STREET,

LONDON.—BUSINESS TRANSACTIONS in every description of BRITISH

STOCKS, FUNDS, and SECURITIES; also, BRITISH and FOREIGN MINES.

### MINING SHARES TO SELL AT THE FOLLOWING LOW

PRICES.—MR. LELEAN is instructed to SELL—9 Marke Valley, £5 7s. 6d.;

10 Wheal Wrey, £3 17s. 6d.; 50 Hawkmoor, £s. 20 Swanpool, £3 10s.; 100 West

Consols, £1 15s. 6d.; 50 Cwm Darren, £s. 6d.; 100 West Sortridge, £s. 3d.; 20 Bedford

Consols, £s. 6d.; 500 Consols, £s. 20 Wheal Russell, £s. 100 Lady Bertha, £1 1/2;

100 South Basset, £s. 6d.; 20 Gawn United, £s. 5 Bedford United, £12 1/2; 15 Alfred

Consols, £14 10s.; 100 Great Crinnis, £s. 100 Devon Wheal Buller, £1 17s. 6d.;

100 West Wrey, £s. 6d.; 2 South Providence, £3 12s. 6d.; 50 Pembroke and

Bedford, £s. 6d.; 100 West Collacombe, £s. 6d.

Mr. LELEAN is also instructed to BUY Buller and Basset United, Great Hewas,

Wheal Russell, Great Sheba, and Pendennis.

Mining Offices, 4, Cushion-court, Old Broad-street, London.

### MR. HENRY GOULD SHARP, No. 4, CUSHION COURT,

OLD BROAD STREET, LONDON, TRANSACTS BUSINESS in every de-

scription of BRITISH and FOREIGN MINING SHARES.

Mr. SHARP is instructed to SELL the following shares, or any part:—

1000 Mortgage Bonds, of £50 each (paying 6 per cent. per annum), £46 10s. each bond.

2000 United, £2 1/2. 30 Hawkmoor, £s. 6d. 30 Bedford Consols, £s. 2s.

1000 Tamar (Lel.), £s. 100 Cwm Darren, £s. 3d. 200 North Hingston, £s. 1s.

1000 Sortridge, £s. 100 Grey Mare, £s. 9d. 50 Cubert, £s. 10s.

1000 East Trelawny, £s. 20 Swanpool, £s. 2s. 325 Molland, £s. 2s.

1000 West Trelawny, £s. 6d. 100 North Wh. Wrey, £s. 10s. 2000 Great Con., £s. 10s.

1000 Wheal Russell, £s. 6d. 2000 Pennance Cons., £1 1/2. 100 North Sortridge, £s. 1s.

1000 Great Sheba, £s. 6d. 100 W. Collacombe, £s. 6d. 80 W. Surprise, £s. 10s. 6d.

1000 Sortridge, £s. 6d. 150 West Par Consols, £s. 11s. 200 Wheal Zion, £s. 2s.

1000 Sortridge, £s. 6d. 50 West Sortridge, £s. 6d. 50 Sortr. and Bedford, £s. 4s.

1000 Quainton Downs, £s. 6d. 20 Wheal Grenville, £s. 2s. 75 Wildberg, £s. 3s. 6d.

Mr. H. G. SHARP will be happy to receive any buying or selling instructions, which

will be promptly attended to.

### JAMES F. BODDY, 15, OLD BROAD STREET, and MINING

EXCHANGE, LONDON, is prepared to BUY or SELL in any of the MINES

mentioned in the general List of the Mining Journal; and will be happy to advise with

any person wishing to embark in bona fide mines, considering the present a most fa-

vourable opportunity to purchase in good sound mining property, paying regularly

10 to 20 per cent. per annum. No investments offer so great advantages as judi-

ciously selected mining stock; and parties will do well to avail themselves of the

present depressed state of the market.

Holders of mining or other stock wishing to exchange their interest for progres-

sive terms, must please state their business.

As so many applications have been made for the Cost-book Rules, &c.,

Mr. Boddy will be happy to forward a correct printed copy to any part of the king-

dom, on receipt of six postage stamps.

FOR SALE.—100 Buller and Basset United, 500 Carnowas, 50 South Buller and

Wheal Russell, 100 Cliffland and Wentworth.

Wheal Russell, North Basset, West Seton, West Sortridge, Sortridge Consols, Rose-

wane, South France, Condurrow, West Caradon, Great Sheba, Lady Bertha, Vale

of Towy, Bedford United, and others.

A correct list of prices, and every information, furnished upon application, either

personally or by letter.

Stock Exchange business transacted for the usual commission.

Nov. 2, 1855.

Bankers: Sir John Wm. Lubbock, Bart., and Co.

MINING INVESTMENT, &c.—The large amount of capital

invested, and the great want of facility for conducting the sale and purchase

of mining stock, has induced us to OFFER OUR SERVICES to capitalists and others, being

desirous of obtaining the most correct information upon the principal mines in Devon,

Cornwall, and Wales. There can be no doubt that mining securities afford to the

investor a safe and profitable mode of investment, many of which, by a careful se-

lection, will ensure a return of from 15 to 20 per cent. for many years to come; others

of a speculative character hold a promise of increased value, and of becoming

valuable property.

MR. JAMES F. BODDY, 15, THREADNEEDLE STREET, LONDON, respect-

fully begs to inform, that he is prepared to transact any BUSINESS, or obtain

any information, connected with MINING, BANKING, or RAILWAY SECU-

rities; and any orders connected with their sale will receive the best attention.

Office Hours from Ten till Five.

### GEORGE MOORE will BUY or SELL, at the closest prices, in any

part of—

10 Arthur. 5 Great Alfred. 1 South Wheal Frances.

10 Alfred Consols. 50 Ivybridge. 10 Trebace.

5 Bolling Well. 50 Kilrairie. 20 Trewhetha.

5 Bedford United. 100 Lady Bertha. 5 West Providence.

50 Buller and Basset Unit. 5 North Basset. 3 West Basset.

5 Cliffland and Wentworth. 20 North Roseworne. 20 Wheal Zion.

10 Caradon Consols. 1 Roseworne. 20 Wheal Grenville.

2 East Wheal Rose. 10 South Tamar. 2 Wheal Kitty (Lelant).

1 East Basset. 100 Sortridge Consols. 10 Wheal Hender.

GEORGE MOORE will be happy to advise with any capitalist who may be desirous of

purchasing British Mining Stock, either for a permanent investment, or for an ad-

vance in price.

Business transacted in every description of British and Foreign Mines; and the

closest prices forwarded on application.

GEORGE MOORE, Dealer in Mining Shares, 1, Crown-court, Threadneedle-street.

### MR. JOSEPH JAMES REYNOLDS, STOCK AND SHARE-

BROKER, No. 21, THREADNEEDLE STREET, LONDON, begs to return

his sincere thanks to his friends and the public for the liberal support received from

all parts of the kingdom during the period he has been a BROKER OF THE CITY

OF LONDON.

Mr. REYNOLDS continues to TRANSACT BUSINESS in BRITISH and FOREIGN

STOCKS, FUNDS, and SECURITIES, BRITISH and FOREIGN RAILWAY

SHARES, DEBENTURES, &c. Also, in ENGLISH, IRISH, SCOTCH, and FO-

REIGN MINING SHARES; and from his long experience in mining matters, and

extensive connection with capitalists, mining agents, and others in the various min-

ing districts throughout the kingdom, is enabled to afford superior information for

careful investment in dividend-paying and progressive mines, which he will effect on

the usual commission. Mr. REYNOLDS begs to observe, that the present period offers

great advantages for investment in carefully selected mines.

### MESSRS. POWELL AND COOKE, DEALERS IN MINING

SHARES, No. 8, HERCULES CHAMBERS, OLD BROAD STREET,

LONDON.—The above continue to DEAL in the SHARES of all the leading DIVI-

DEND and good PROGRESSIVE MINES.—Oct. 26, 1855.

### MR. W. LEMON OLIVER, STOCK AND SHAREBROKER,

4, AUSTINFRIARS, CITY.

BUSINESS TRANSACTIONS IN HOME and FOREIGN RAILWAYS, FUNDS,

SECURITIES, BRITISH and FOREIGN MINES, &c.

### MR. B. LAMBERT TENDERS HIS SERVICES TO PARTIES

INVESTING IN or SELLING MINING PROPERTY. By the soundness of

the information to which he has access, and the bona fide character of the under-

takings to which he directs attention, his constant endeavours are to secure the sup-

port of his clients. OFFICIAL PRICES forwarded daily on request; and a WEEKLY

GENERAL LIST OF PRICES, with a Commentary on the State of the Mining Share

Market, published every Wednesday, in time for the evening mails, will be forwarded,

post free, on application.

Offices, 3, Hatton-court, Threadneedle-street.

### MR. HY. SIBLEY, STOCK, SHARE, AND MINING AGENT,

4, RICHIN LANE, CORNHILL.

### MR. NEWTON SAMUELSON, F.C.S., ASSAYER AND ANA-

LYTICAL CHEMIST,—3, HACKIN'S HEY, LIVERPOOL.

### MR. W. H. BRUMBY, STOCK AND SHAREBROKER,

1, QUIET STREET, BATH, is a BUYER of Boscan, Sortridge Consols,

Great Alfred, Alfred Consols, Wheal Wrey, Wheal Zion, and West Polberro.

### MR. WM. ROSSER, LAND AND MINERAL SURVEYOR,

LLANELLY, SOUTH WALES.

Tenants found for coal, ironstone, and every description of mineral property. Col-

lieries and mines viewed and reported on. Maps kept by contract or otherwise.

### MR. T. M. GEORGE, ASSAYER,

LISKEARD.

### THOMAS EDINGTON, PURCHASER AND INSPECTOR OF

CASTINGS ON COMMISSION, 17, GORDON STREET, GLASGOW.

### MR. JAMES TAYLOR, METAL BROKER,

MIDDLESBRO'-ON-TEES.

### MR. EVAN HOPKINS, CONSULTING MINING ENGINEER,

38, THURLOE SQUARE, BROMPTON.

### MR. ADAM MURRAY, CONSULTING MINING ENGINEER,

76, CORNHILL, LONDON.

### ENGLISH DIVIDEND MINES.—Shareholders in dividend mines

are not subject to calls or liability of any kind if they select the mines known to

be free from debt, with large reserves, making considerable profits upon present

workings, and paying dividends every two months, that are likely to be maintained

for many years to come, varying from £15 to £25 per cent. per annum upon im-

mediate investments. The great majority of the new adventures, termed mines, are in

debt, without prospects, and utterly valueless. Safe and profitable investments can

only be effected by acting upon reliable information. The undersigned are in con-

stant communication with the best mining districts, do not speculate on their own

account, but confine themselves exclusively to a commission business, and are, there-

fore, in a position to give an independent and disinterested opinion. Every infor-

mation afforded for the safe investment of capital; and purchases and sales effected with

the utmost promptitude, and upon the best possible terms.

JAMES S. TRIPP AND CO., 33, Clement's-lane, Lombard-street.

### MR. E. GOMPERS, No. 98, GRACECHURCH STREET, has

BUSINESS TO TRANSACT in most of the leading DIVIDEND and PRO-

GRESSIVE MINES. Also, in Life, Fire, Maritime Insurance, Steam Navigation,

various Gas Companies, and various Joint-Stock Companies' Shares, returning regu-

lar dividends.

### MR. W. MICHELL, COMMISSION AGENT AND DEALER IN

BRITISH MINES, is always in a position to BUY or SELL in most DIVI-

DEND MINES, as well NON-DIVIDEND MINES, where the prospects are such as

will lead to early dividends. Gratuitous advice given on personal application, or by

letter.—2, Crown-court, Threadneedle-street, London.

### EAST BASSET.



### ACCIDENTS IN COAL MINES, AND EDUCATION OF THE MINERS.

long of individuals, brought up in the coils and in the dangers of their  
mines, who will be much more competent to cope successfully with their  
difficulties of applied science, than any who have been educated, received  
their sympathies and tendencies, modes of thought and action, within the  
sanctum of colleges and universities. I shall not attempt to wage a war  
fare against the scientific and literary halls and colleges of this highly  
favoured land, or weigh in the balance of Justice their advantages and dis-  
advantages; so long as the recipients of these venerable seats of lore are  
satisfied with their own jurisdiction—the pulpit, the bar, and the senate  
—but when they step forth, as they do at present, robed in the majestic

In addition to the excellent propositions of Mr. Hedley, I would respectfully suggest, for the consideration of that gentleman, the desirability of extending the franchise to the man of toil who attains a certain literary and scientific standard, and discharges his duties, both public and social, with promptness and fidelity. Would not such a man be as valuable to the community as he who possesses a little material wealth, but stained by adulterations and other wicked practices, which are by no means

## BRADFORD'S SEPARATORS

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ASSAY OF GOLD ORES—THE NOUVEAU MONDE COMPA

These are all the notes on the assays made per Messrs. Wass, Molten, and of San Francisco, that I have; there was one made just before I left, of the ore of the Josephine Mine, by the same parties, which, if I recollect rightly, came out at 2 ozs. per ton. I was not personally acquainted with Messrs. Wass, Molten, & Co.; but, being allowed once into their laboratory, I saw enough to convince me of their business well. The assays were taken to them by parties who had no connection with them in any way, and most times they were only marked with letters. The assays withheld from me by Mr. John Arthur Phillips were reported to have been considered as high,—more or less, I expected them of about 2 ozs. per ton, or rather more of those from the Pine Tree Mine, and those of Mount

JOHN H. CLARK

Gloucester-terrace, CAURCA-lane, Kensington, Nov. 1.

fabric of the gun, provided the welded joints are not so weak as to anticipate weakness must arise from the unequal expansion of the metal in the direction of the longitudinal contractions, I contend, imply unequal strength, and the unequal strength of the gunpowder applied under explosion will assuredly determine the direction of the shot. I, therefore, with all deference to Mr. Dundas, beg to submit that, in the exercise of so capricious and uncertain a force as the resistance of the explosion of gunpowder has to be encountered, theory should be the condition precedent to any experiment, and that the experiments are to be diminished the cause of the incoherence be the substitute for cohesive force, if the heterogeneous materials described can form the cannon, the "entire whole of which is composed of such heterogeneous and ununiform parts, that the noise of the explosion is not homogeneous, and altogether sound." It is only actual observation, and not the principles of construction, that can determine the proper position of the powder in the manufacture, be-

[illegible]



have now an active agent on the mine to carry it out; he accompanied me underground in many of the Welsh lead mines. I have no doubt he and Captain Rowe are willing and able to give you and the public plans and estimates as to what they could do for the 10000, required.

In conclusion, I might remark that nearly every fourth mine I see is managed not one iota better than Esgair Mwyn, and I might fairly say that one-third of the money is spent in mining useless, for want of proper plans and estimates at the commencement. — *Wreiddias, Oct. 30.*

NICHOLAS ENFOR.

~~GREAT WHEAL BADDERN, AND CAPT. ROGERS~~

Six.—By the report of the last meeting in this mine, I see there is some misunderstanding between Capt. Thomas, of Dolcoath, and Capt. Rogers, as to the dam ordered to be erected by the former. It would seem that the committee, or some of the shareholders, were not quite satisfied with Capt. Rogers's management of the mine, and some few months ago called in Capt. Thomas, who was superintendent of it for, I believe, six months. From almost the first time of Capt. Thomas visiting the mine, the two seemed to have disagreed, and anything ordered by the one is objected to by the other. Now, this is a great pity, and if the shareholders do not at once have a stop put to it, our property, which is now becoming valuable, with some prospects of dividends, having made a profit of 300*l.* on the last three months' workings, will be lost to us. I am pleased to find Mr. James Wolferstan has been requested to appoint an independent party to visit and report upon the mine, but I cannot help expressing an opinion that Capt. Rogers seems desirous of having the entire management of it himself, and will not concur in any suggestions from others; and I am confirmed in this opinion from the remark he makes in his last report, which says—"The mine is now in a good state of working, and if it had not been interfered with by officious parties, would have been doing much better than at present." This looks a good deal like jealousy, and it will be for the shareholders to decide at the special meeting to be held to receive the report, what course we shall take; and I trust every shareholder who can will attend.—Oct. 30.

A SHAREHOLDER.

## JOBGING SECRETARIES

Sir, Mining speculators have been from time to time loud and earnest in their complaints of the want of good faith and plain straightforward dealing on the part of mine agents and brokers; and there can be no doubt that such complaints are in a great degree well founded, and that remedial measures are becoming more and more necessary. It seems to me that speculators themselves are not entirely without blame in this respect; and frequently and more autocratically than they should call for information relative to the management, and the prospects of the enterprise in which they are interested in, they would less frequently have to regret their selection of those for investment. But at this time I wish to call your more particular attention to the great and increasing evils arising from a system originating with the adventurers themselves, and which to an extent they little suspect prejudices alike their own interests and those of the community. I allude to the practice of appointing share-jobbing secretaries. The business of mine secretaries is to be quite distinct one from that of buying and selling shares, and can never be carried on by the same person without jeopardising, to a greater or less extent, the interests of proprietors. A secretary, as a matter of course, is constantly in possession of exclusive information, which gives him the opportunity of filling his own pockets at the expense of his employers. It is not infrequently the case that the same individual frequently happens that a broker or agent has no choice between refusing business and acquiescing in, or at least refraining from exposing, practices which all honest men must condemn. It would operate very powerfully towards imparting a healthy tone to the market if the share ledgers were regularly submitted to the inspection of shareholders at their meetings, and a concise account of all transfers printed and embodied in the annual report. If the shareholders were to insist on this, and to demand earnest, and they would aid them with your valuable co-operation, we may soon hope to be rid of so crying an evil as these jobbing secretaries.

H. B. RYE.

## WESTMINSTER IMPROVEMENT BONDS.

Sir,—How disgraceful it is to all concerned to see this fine property in a dead fix. This state of affairs is owing to a combination of conflicting interests, consisting of money lenders, builders, and needy solicitors. I shall now point out to the bondholders the shoals which surround them in abundance. Let them bear this in mind, that Mackenzie and the other builders, having received from the commissionaires a sum of \$12,000, in bonds instead of cash, as they were promised, have the option to pay off the mortgage within five years also in bonds; there is nothing more than equitable, as this breach of faith cost them upwards of 70,000*l.* loss in the first instance. It is now their interest to keep them depreciated as much as possible, in order to enable them to buy within five years \$12,000*l.* of bonds for a mere song, and, therefore, they keep aloof till 1859 has passed. The necessities of poor holders have compelled them to sell at a loss of nine-tenths of the capital, and several bonds of 1000*l.* each have been sold within the past week at 100*l.* each. The wedge may, however, be driven too far, and, ere long, some capitalists may quietly step in and support by buying up bonds, which would soon double their present values on an average demand. I believe the price is now to be worth 300*l.* to-day, as they were selling at 100*l.* last Monday. To be sure, the new bonds are issued at a discount of two-thirds of that sum to the builders. Let the bondholders arouse themselves from their apathy, and bring their houses into a state for mortgaging. If they will not do this themselves, *pro rata*, let them admit the public on certain terms. With 250,000*l.* cash, I believe this valuable property may be preserved from wreck and ruin. A company ought instantly to be formed, with limited liability, to expedite the completion of the streets, by which ground rents would speedily be realised on property not now built on, and the value would be enormously augmented. I should divide the capital of the new company in shares of 10*l.* each; and give to each holder of a 1000*l.* bond 100 new shares of 10*l.* each prime up; and, of course, give the 1425*l.* of preference a preference in the first dividend to take up the *pro rata* proportion of 17½ shares each, on paying at the rate of 10*l.* per share. Thus the capital of the new company would be composed as follows:—

~~THE GREAT MINING PROTECTIONIST SOCIETY.~~

13,964 shares given to old bondholders, at 107. each .....	£139,640	
25,000 shares issued to the public, at 104. each .....	250,000	=£389,640

I admit the old bonds at 2007. each for 1000*l.*, and think this a fair and equitable value to all concerned; all would be mutually benefited in a year or two. Houses in flats are every day becoming more in vogue. I now conclude, giving some estimate as a guide to those interested.

I.	Per annum
Value of buildings pledged to commissioners .....	£25,000
Of which must be deducted—	
For ground rent .....	£4100
Interest on mortgages, 140,000 <i>l.</i> at 5 per cent. ..	7000
Interest on advances to finish them, 50,000 <i>l.</i> at 5 per cent. ....	2500 =
	13,600
Nett per annum .....	£11,400
(On 400,000 <i>l.</i> debt in bonds, 2 <i>½</i> per cent. per annum.)	

II.

Houses, 25,000 <i>l.</i> per annum at 16 years' purchase .....	£400,000
Deduct mortgages .....	£140,000
Money to be advanced to finish them .....	50,000 =
	190,000 =
	£210,000
Or if they are valued at 18 years' purchase .....	£260,000

III.

	Per annum.
Ground rents covered, about .....	£ 6,000
Ground rents uncovered, about .....	15,000 =
	£21,000
Value at 30 years .....	£830,000
Mortgages .....	£280,000
To pay .....	50,000 =
	330,000

It is to be regretted that there are many parties selected to report on mines

Nett value ..... £300,000, to meet 250,000l. bonds

Tables I. and II. show what may be done with even an advance of 50,000l., or about 35l. on each 500l. bond. In spite of the present extraordinary combination, I foretell that the crisis is passed, and that better times are looming in the distance. It only requires the formation of counter-combinations of independent bondholders, with a full determination to steer clear of all jobbery, and whose sole aim would be to permanently increase the value of their shares.

H. GUERDALL.

## LADY BERTHA MINE AND ITS MANAGEMENT

## X GREAT ONSLOW CONSOLS, AND ITS MANAGEMENT.

SIR.—The communication of "An Inspector" did not come to my notice until very recently, to which I beg to reply that his complaints as regards reports, &c., are, without foundation. Besides those published in your Journal, there are lengthy reports sent to the secretary of the company at least once a month, from whom any information may be had. The writer states that we have only 30 men at work, whereas we have had no less than 1,000 (including surface labourers of all descriptions) four times that number. To the statement that 300 men ought to be at work, I should say that he had better be guided by those who undoubtedly know better about that than himself. Why did he not bring his supposed grievances forward at the half-yearly general meeting, on the 3d inst. ? Where I was present, and should have been glad to have met those charges. Few mines have been inspected oftener by unconcerned and practical men, the general tenor of whose reports is totally different from the statements of "An Inspector."

In conclusion, I beg to inform him that good management does not consist in writing reports. I have also to request him, when he again brings my character and abilities before the public in the manner he has done, he will pay a little attention to truth.

## ~~X~~ GREAT ONSLOW CONSOLS, AND ITS MANAGEMENT.

Sir, - The communication of "An Inspector" did not come to my notice until very recently, to which I beg to reply that his complaints as regards reports, &c., are without foundation. Besides those published in your Journal, there are lengthy reports sent to the secretary of the company at least once a month, from whom any information may be had. The writer states that we have only 30 men at work, whereas we have had no less than (including surface labourers of all descriptions) four times that number. To the statement that 300 men ought to be at work, I should say that he had better be guided by those who undoubtedly know better about that than himself. Why did he not bring his supposed grievances forward the half-yearly general meeting, on the 3d inst. I where I was present, and could have been glad to have met those charges. Few men have been inspected formerly by unconcerned and practical men, the general tenor of whose reports is totally different from the statements of "An Inspector."

In conclusion, I beg to inform him that good management does not consist in writing reports. I have also to request him, when he again brings my character and abilities before the public in the manner he has done, he will pay a little attention to truth.

Ocf. 30, GEORGE RICKARD.

## X ESGAIR MWYN MINE, AND ITS MANAGEMENT.

Sim. - I noticed in our Journal of last week a report from Capt. Rowe on this mine, where the stone 10009, is required to give it anything like a fair trial; in fact, he says they have not yet seen the bottom. I think I might fairly ask if this is not a deplorable specimen of mine management? Mr. Hopkins, Mr. Josiah Hitchens, and myself, examined this mine expressly for these proprietors, about five years since. When in Wales I had an old section of the sett put into my hands, showing the mine as sunk by shamuel winzes to about 40 fms. below the adit. Judging from this section of the workings, the ore appears to be inclining west. This lode about the ore ground has the most lode-like appearance of any I have seen in Cardiganshire, and is certainly worthy of a fair trial, as it is evident the ancients extracted immense quantities of lead from this mine, or it never could have paid them.

I might interest your readers by remarking on their ancient mode of working. First, they drove an adit into the hill on the course of the lode, then they cross-cut off into the country some 12 or 14 fms., when they commenced a perpendicular shaft, and cut a whim round underground in the lode. After cutting the lode, they continued to sink by shallow winzes to the bottom. After cutting the lode, they continued to sink by shallow winzes to the bottom. To work a mine in this way they certainly must have had a good deal of sinking down, but it now appears that no one has even seen the bottom since the ancients left it. From what I could judge by examining the lode in the adit, it is like most of the Cardigan lead deposits—good bunches for about 50 or 60 fms. in length. The ore ground is plainly shown in the adit, which clearly proves the eastern ground to be of no value.

—  
AUSTRALIAN CONSOLS

818.—The recent advertisement of the directors is unfair towards the public, and I will keep silence no longer. It is now nearly two years since Mr. Coles Child and myself organized and conducted an investigation. We have authority from the sale of 25,000 shares out of the 49,000 which are our guarantee legal proceedings against the directors, and to ask from these shares 6d. each, but up to the present time have not done so. The Chairman went out to Australia at the time I was at Constantinople, and my colleagues inform me they were not cognizant of his intention of going till he was far away. This is acting in concert with a vengeance. Why was not the fact advertised at the time, instead of being kept from the shareholders till the 10th of October? It is stated that the arrangements have the unqualified approval of the committee of investigation, which is further from the truth than the fact. I can answer for himself, but I will speak out. It is maintained that no one who had not signed the "cost-book" ought to know the present position of this concern; but I maintain the contrary, and give the following details, obtained from a friend of Col. Macqucen's, to which I challenge contradiction. I candidly confess I see no end of the affair but a Chancery suit, of which I hope to live to see the end. The number of shares out is 49,000, of which, Macqucen has had 13,000, Rogers 26,000, and the balance 10,000. The shares of the Macqucens estate, the estate of the Rogers, have been in town seven months, 39,000/ more must be paid. The directors have also made a contract with Mr. Rogers for the royalty, which, although it looks extravagant at the first blush, yet is nothing very extraordinary, when it is considered that the cake has to be divided into slices. He only gave it 5000/., and re-sold it to the company for 45,000/. His contract is 70,000/ for—1. The royalty.—2. The annuity of 800/ a year.—3. The 10,000 bond. The estate is undoubtedly of great value, and did it belong to me I could not do otherwise, especially, a twelve-month ago, than to sign a contract to satisfy their demands, the foreboding of the latter to come, and, I am confident, no fresh capital will ever be raised. There is a terrible complication in the whole affair.—1. Rogers claims of Macqucen some of the 39,000/, on the fee for the entirety of his interests.—2. By the death of Colonel Macqucen, who died in 1854, the estate is re-leased for 800/ a year.—3. The bond of 10,000/., payable to the representatives in about five years, was not charged on the estate, whatever is said to the contrary. I have spent more time and money on this concern than any of the others. The shares are now only worth 8s. to 3s. 6d. each.

H. GUEDALLA.

**CULCHOTE COPPER MINING COMPANY**

Sir, Heavy as continuous calls, for the purpose of carrying on an undertaking, may fall upon the unfortunate shareholders, I cannot but think that, had this company been so constituted as to have given the directors or the shareholders, at a general meeting, the power to have made a call, the difficulties in which the company is now placed would have been materially lessened. The latest reports from the mining agent and superintendent at the mines are decidedly more favourable than any before received, and it appears that the question of raising an additional £20,000, or £30,000, additional capital. At the meeting, on Monday last, at which I was present, it was proposed to raise 10,000, by mortgaging the company's property, to pay what the company is in debt, and carry on the concern for six months longer, by which time it is expected that the returns will pay cost. Now, providing this money be raised, although, under present circumstances, I much doubt if it can, it will but add to the number of the undertakings in which the profits are for a length of time to be received by the interested parties, and the shareholders, and not the original shareholders of their goods for some time after they would otherwise receive it. Several shareholders appeared







**The Worthing Mining Company** have received advices from their colonial committee at Adelaide to July 10. From the steps taken by the Britannia Mining company, with a view of selling their estates, the acting manager of the Worthing Company hoped before long to be in a position to recommence operations at Wheal Maria, which has always been regarded as one of the most promising mines in the colony. The estate and stock valuation of the Worthing Mine and property in the colony showed a total of 20,676 lbs. 2s. 7d., and the balance of cash in hand on the 1st of July last amounted to £267. 17s. 1d., without any liabilities whatever, thus being independent of all other considerations, and he was in receipt of the following communication from the shareholders to learn that the acting manager had succeeded in letting on lease with a reservation of mineral and other rights, the whole of the sections of the Worthing estate, with one exception, at an average rental of 7s. 6d. per acre, the income therefrom being more than sufficient to cover the establishment charges.

**The Kapunda (South Australia) Mining Company** have received advices from their agents to June 22, at which date the operations at the mines were proceeding satisfactorily. The underground works are kept free from water, and the pitworkmen laying open good ore ground for the tributaries to work upon. Labour was abundant, and there were 106 pickmen alone employed, of whom 98 men and boys were at tribute work on 43 pitches, at a cost varying from 3s. to 9s. in value of the ore, which satisfied them as good wages, as they were turning up large quantities of ore. In the month of April there were 213 tons of concentrates and sundries, and about 320 tons for May. The topmost ore and regulus on hand on June 22 comprised 173 tons comprising a percentage of 26 per cent. average produce, at the port ready for shipment; 103 tons of copper ore of 26 per cent., and 32 tons of 25½ per cent.; at the mines, ready for cartage to the port; and at the smelting-works, which are again in steady operation, there were 100 tons of regulus, of about 55 per cent. average produce, and about 280 tons of ore, of 14 per cent., for conversion into regulus, expected to yield about 70 tons of 56 per cent. The agent was in treaty for freight for the shipment of the ore lying at the port; he, however, had difficulty in procuring vessels, for the cartage to the port of the stock lying at the mines. He also hoped would, after the current month of June, be less difficult, as the ploughing and sowing were just then about finished.

**The Quartz Rock Mariposa Gold Mining Company** have advices from Mr. Waddell, dated Sept. 19, stating that the new lease of the Macra Harrison Mine, and all the deeds connected with the settlement of the company's debts, had been received by him, and sent to be duly recorded. He was in receipt of the cash dividend of \$100,000, and communicated him on the 27th July last, directing him to take possession of the company's property at Maxwell's Creek, and to recommence operations, and he was making all the necessary arrangements and appointments prior to at once going up to the company's establishment to alter certain parts of the machinery and re-start the works.

**The Rocky Bar Mining Company** have advices from their agent, Mr. Seyton, dated Grass Valley, Sept. 18. The produce of the rock, as shown in the accounts rendered, appears to have varied from \$19,886. to "\$73,696. per ton. Some dirt from the drifts yielded \$8 per ton. The agent observes: "We have had no rock from the engine-shaft as yet below \$50, and some of it has produced as high as \$80 per ton." We make the following further extracts:—"Instead of two men drifting, I have 15 or 18, besides shovellers, underground. I have found the ledge grades rising and falling in thickness and in richness as it descends; and from both sides of the shaft, and observations, I am convinced that the nature of the ground is quite different. It is mainly heavy iron ore, so that our liabilities are already nil. I suppose I need hardly add that I regard our success as certain. The first four lots of gold were sold by me here at the rate of \$16 37½c. per ounce, as we wanted the coin, and could not wait the return from the mint. The others have been and will be forwarded by Wells, Fargo, and Co., to the care of an agent, Mr. Housch, the banker, to be sent by him to the Mint at San Francisco. I expect the gold will net us \$17 to \$17 25c. per ounce. I shall send you the assay certificates, and if you can forward me a receipt of this letter, I need give me much satisfaction to write it. I cannot wait until I receive your answer, and I intend to stop the first drafts, but if there be any behind you can take care of them in New York. Besides, I have just finished crushing another lot of 81 tons (which I have not included in my accounts this mail, as the amalgam will not be retorted till tomorrow), which will certainly yield about \$80 per ton. Including the results of last week's crushing, I shall have a clear balance in my hands of over \$9500. I shall allow time to sink the engine-shaft deeper by 25 ft. or so, and cut through the level to state the shaft. This will give us work for from two to five years. It is impossible to state the time, all will depend on the nature of the ground, and the size of the ledge. At present, the width of the ledge is 4 feet, but it gradually increases as it descends, and by a series of experiments I have satisfied myself that it is richer as it descends also. The rock from the present main drift pays about \$80 per ton (portions, if crushed separately, would pay far over \$100), and it diminishes gradually in value as we ascend from the level of the drifts to the level of the old workings, where as yet it has not averaged over \$20 per ton. At present we are by far the most successful company in the country; and I see no reason to doubt the continuance of our good fortune. We cannot work out all our main lot of claims (on which I am operating at present) in twelve days; only, if we get into hard rock the work will be more difficult."

From Australia, we have further advices to Aug. 15. In the gold districts a dead calm has succeeded the excitement which previously prevailed, but the prospects of the diggers notwithstanding continued brightening. At Bet-Bet, a rich quartz reef, discovered by a party of prospectors, numbered among all quarters. As was anticipated by the old miners, at the lower end of Kangaroo Flat several claims have proved very productive, and have caused a rush. At Kingower and Sandy Creek, the reefs are turning out well, and only require machinery for efficient working. The rush to Mount Moligall is considerable, and sanguine hopes are entertained of success. The sinking is now on the flats opposite the old camp, and varies from 10 to 15 feet in depth, and as there is plenty of water to wash will have a fair trial. A monster nugget, weighing upwards of 23 lbs., is said to have been discovered near the foot of the lead. In Mount Blackwood locality, great interest attaches to the site of a crushing machine erected late of the Indian surveying staff, recently inspected the line, and found that the military compass showed a variation of 4° eastward, and that all the quartz reefs in the locality could be traced for miles, allowing for variation in compass. What is wanted, however, by quartz miners is a machine, easy of removal from claim to claim, to enable them to try the veins, which would find endless employment, and, in some measure, obviate the want of capital, so much felt at present. The fact, too, for quartz mining is decidedly on the increase, and, like coal, the business and disappointment. However, at Bendigo diggings some of the powerful machines recently erected have produced such surprising results that every one rushes to the quartz reefs, and claims are taken up with indiscriminating eagerness. It is difficult to predict results, but the facts which now and then come to light certainly encourage favourable anticipations; for instance, out of 5 tons of quartz crushed in a day by a Berdan machine, the quantity of gold obtained amounted to 6¼ lbs. Several dry-lods of quartz tailings, refuse of quartz crushed by one of the old machines, upon being recrushed by Berdan's, yielded considerably more than 1 oz. per load. The same machine, however, is that it is not a steam-engine of 16-horse power, which works a small spur wheel into one of larger dimensions, keyed into a horizontal shaft 16 ft. long by 20 in. diameter, revolving in bearings supported by two massive wooden horses, bolted together in a most substantial manner. This shaft or axle is encircled with a number of strong iron hoops, between which are inserted 48 cast-iron lifters, so distributed that they take up only four stamps at a time. Behind the shaft three ponderous frames are affixed, within each of which are four stampers, weighing 5 cwt. each, having a lift of 12 in., and falling 65 per minute, thus giving rise to 780 strokes per minute. These are raised by means of a cross-screw, resting on a foundation of solid masonry, and immediately under such frame is a huge block of granite, surmounted by a cast-iron bed-plate, 8 in. thick, embedded in sheet-lead. At the bottom of each frame there are four large openings, in which are fitted very finely perforated copper plates, through which the crushed quartz is forced by a continuous stream of water into triangularly shaped table, with a slight incline, which leads it to a semi-circular basin containing mercury, where it is kept gently agitated by a small shaft, worked by a belt from the main axle; the shaft is fitted with wings, in a spiral form, so that the gold is arrested on an incline, upon which the quartz is carried, and discharged from the cart into a large hopper, subdivided into three compartments, each having a feed board, regulated by a screw, and a jet of water supplied by the engine, so economising labour that from the time the quartz is cast in it never requires to be touched until the whole process is gone through, and the quartz reduced to impalpable powder. Mr. Thomas Carpenter is the engineer and inventor of the machine. It is computed, allowing that a stamp crushes 1 oz. at every fall, that the whole will crush 780 cwt. per minute, 30 cwt. per hour, or 30 tons daily. The shipments made since the commencement of the season at 3f. 10s. 6d. each, at 80s. per oz., is equal to 5,584,424.

We have received advices from Jamaica to Oct. 11, which report favourably on the mining prospects of the island. According to a late personal inspection of the mines of Wheal Jamaica and Clarendon Consolidated Mining Companies, they reported most confidentially on the ultimate results. As regards the Charing Cross Mine, it is stated that if a mine exists anywhere it is there. A continuous lode has been driven upon at a depth of from 60 to 70 fms. along five distinct levels below the crest of the hill. In every one of these levels the regular course of the lode is clearly yielding, and the ore is of the best quality. The lode is of rich ore. Every branch commencing from level to level carries the same branch of ore to a depth of 50 fms. from the highest to the lowest levels, and the branch was beautifully developed in nearly all the ends and winzes. In the deepest or 50 fm. level, where the lode has been intersected by means of a cross-cut, driven for upwards of 40 fms. through a compact porphyry, nearly as hard as iron, the same branch stands conspicuous, with the addition of a strong course, impregnated throughout with native copper. So highly promising are the appearances at Charing Cross, that the company have lately applied to their working agent for the importation of a second mine agent, and six Cornish men, who arrived by the last mail steamer, and are now permanently settled at the mine. Capt. Lean, the additional mine agent, is a man of known character as a practical miner, and must be considered in the light of a great acquisition to the company. As a matter of course, there is a certain amount of risk in all mining enterprise, but if geological and mineralogical science lead to any definite conclusion, no man who possesses a fair amount of either can err greatly in ascribing to Charing Cross all the elements of a valuable mining property. Within three months of the discovery of the lode, and much less time by the importation of a second mine agent, and six Cornish men, the appearance of the lode, as yet, the ground is opened to a much less extent than at Charing Cross, and, therefore, as yet it is scarcely possible for a casual visitor to speak with so much confidence from actual observation. This fact, however, is certain—that there is at Stamford Hill a perfectly well-defined lode, upon which a shaft has been sunk to a depth of 30 fathoms, and which continues to yield stones, strongly impregnated with the yellow sulphuret of copper, whilst some highly oxy green ground has been driven through to the 22, which it is fully expected will tell very profitably when the shoot ore is reached in a deeper level. The lode seems to run as a cross-cut, taking its direction from the south-east, and communicating with the shaft. It will be seen from this account that everything is proceeding at Stamford Hill as favourably for the development of its mineral treasures as could reasonably be expected. Time, patience, and perseverance, alone are wanting; and there certainly is an improved feeling on the subject in England, which there is every reason to encourage, and nothing to chill the enterprise of those who have embarked in mining speculation in the island, the ores being rich beyond example. The first experience of the equipment made by the Wheal Jamaica Company to Liverpool, consisted of 6 tons of ore, of which crushed nor washed, fetched 24f. 15s., and netted in round numbers 20l. per ton.

The arrivals at Swansea include—from Riva dei Sella, 48 tons of copper ore; from St. Malo, 44 tons of lead ore; and from Cuba, 452 tons of copper ore.



## BRITISH MINES.

composed of quartz, prlan, munda, and lead, worth about 2 cwt. per fm. There has been no lode broken in the 90 north end during the past week. The same is applicable to the slopes in back of this level, south of the engine-shaft. The lode in the 66, south end, is still split and disordered; the slopes in the back of this level are worth at the rate of 9 cwt. of lead per fm.; the slopes in back of this level, north of sump-wind are worth from 6 to 8 cwt. of lead per fm. The lode in the 56, south end, is 14 ft. wide, composed of quartz, prlan, &c., with occasional spots of lead; the slopes in the

tin. Dipipa's shaft, is down to the 60 fm. level; the western one, called Cynhroweth's, is down to the 90; the engine-shaft: Moyle's, a downright, to the 80; New Wharfedale's, to the 100; and the shaft of the engine, which is sunk to the 120. Hodge is down to the 60, on the lode; and the other, Taylor's shaft, is sunk to the 80.

flat causes us to be constantly subject to these breakages. At this moment  
nearly 9 fathoms under the 10; I should recommend driving at once under the u

[illegible]



Figure 1. The effect of the concentration of the  $\text{H}_2\text{O}_2$  solution on the amount of the  $\text{H}_2\text{O}_2$  consumed in the reaction of the  $\text{H}_2\text{O}_2$  with the  $\text{Fe}^{2+}$  ion in the presence of the  $\text{Fe}^{3+}$  ion.

## 703

Figure 1. The effect of the initial concentration of the monomer on the polymerization of  $\alpha$ -methylstyrene initiated by  $\text{TiCl}_4$  in  $\text{CH}_2\text{Cl}_2$  at  $-78^\circ\text{C}$ . The concentration of the initiator was  $1.0 \times 10^{-2} \text{ mol/L}$ . The concentration of the monomer was (a)  $0.1 \text{ mol/L}$ , (b)  $0.2 \text{ mol/L}$ , (c)  $0.3 \text{ mol/L}$ , (d)  $0.4 \text{ mol/L}$ , (e)  $0.5 \text{ mol/L}$ , (f)  $0.6 \text{ mol/L}$ , (g)  $0.7 \text{ mol/L}$ , (h)  $0.8 \text{ mol/L}$ , (i)  $0.9 \text{ mol/L}$ , and (j)  $1.0 \text{ mol/L}$ .











### Notices to Correspondents.

\* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly *re-ordered*: it then forms an accumulating useful work of reference.

**IRON PYRITES.**—SIR: I shall be very glad if any of your correspondents would give me information as to where there are large quantities of iron pyrites (or brass umpe). Some time since I saw in your valuable Journal that there is a mine near Wicklow, in Ireland, producing a considerable quantity. Any communication on the subject will receive every attention, addressed "Box 80," Post-office, Manchester.—AN OLD SUBSCRIBER.

**MINERA MINES.**—SIR: These mines are situated near Wrexham, Denbighshire, and are divided into 1800 shares, of 25s. each, consequently the working capital amounts to £45,000. It is a close or private company, and very few shares, I presume, change hands. Large profits are being realised; the prospects are very good for future returns, and the operations are conducted with the greatest intelligence and ability.—X.: Wrexham, Nov. 1.

**SITNEY WHEAL BELLE.**—SIR: Can any of your correspondents inform me what is the history of this mine? Is it still at work, or is it sunk in oblivion, or is it through interested motives kept from public notice? Why does the rich lode in Wheal Belle so prominently figure in Wheal Vor reports, and not a word as to the lode in Sitney Wheal Belle, though identically the same, and the scene of operations in both mines only a few fathoms apart? Where are its promoters? When they started there was 30,000l. worth of tin ground laid open, and that 2000l. would bring the mine into a dividend-paying state, I ask if that statement has been borne out in fact? It was asserted that dividends would be paid by the above small outlay by the end of the year 1852. Is it likely that dividends will be paid by the end of the present year, when upwards of 10,000l. has been already expended? And in the statement made some 15 months ago, that nearly all the tin was extracted from the pockets of the shareholders, and that little or no tin was to be found in the mine likely to replace it?—DICK SKEELING CORRECT INFORMATION: Nov. 1.

\* A. B. C.—We think by a mutual understanding: certainly not from being guilty of any offence.

**WHEAL JULIAN.**—GREAT QUINCY.—SITNEY WHEAL BELLE.—SIR: In reply to your correspondent's enquiry respecting Wheal Julian, I beg to assure him that Captain J. H. Sawdon has no wish whatever to recommend it to any one, having no desire to part with any of his interest. I am happy to state that the rich course of tin lately met with in the south part of Great Gwinn is still holding quite as good—rather improving than otherwise. I understand that Sitney Wheal Belle now forms part of the Great Wheal Vor, the richest tin mine in Cornwall.—TIS MINER: Tavistock, Oct. 30.

**SAN FERNANDO MINING COMPANY.**—SIR: If your correspondent, "An Inquirer" (Manchester), will inform me where I can address a communication to him upon the subject of this company, I will take the earliest opportunity of doing so, with his permission.—A SHAREHOLDER: Oct. 31.

**CROOKHAVEN MINE.**—SIR: Permit me, through your Journal, to ask a question in reference to this mine. Mr. Warton, in his eulogistic praise of it at the sale, on the 17th inst., goes on to describe the mine as a model one, and that it expended was not misapplied. &c. Now, may I ask any of your readers, Mr. Warton, or the late directors, to inform me under whose direction, or local management, such perfection was attained? I simply ask the question, in consequence of being anxious to secure the services of such acknowledged ability.—A MINE PROPRIETOR: Oct. 29.

\* C. D. (Exeter).—We shall carefully watch the proceedings of the company named, but do not think it advisable at present to allude more particularly to the subject.

**AUTRILIAN CORDILLERA GOLD COMPANY.**—SIR: I am not at all surprised that this company should have so signally failed, though possessing the elements of success, capital and a gold field worth working. If Mr. Warwick A. Hunt is to be taken as a fair sample of an efficient servant, this person was appointed purser because he was brother-in-law to Col. Woodbridge (the chairman), which appears to be the only recommendation he possessed for the office. It is always customary, where adventures are conducted on the cost-book system, for the purser to receive and pay all moneys due to or by the company; he may, therefore, be presumed to be fully conversant with its affairs. Mr. Warwick A. Hunt, though purser to the Cordillera, knows nothing about its internal management. He cannot tell whether there are any funds to return to the unfortunate shareholders, or what has become of the bulk of the 40,000l. paid-up capital, but readily acknowledges that Col. Woodbridge performed the onerous duties of the office, and all questions which a purser should be in a position to answer are referred to that officer for solution. Mr. Hunt attended the meeting presided over by Mr. H. Guedalla, for the purpose, as he said himself, of "affording every explanation in his power," but he unfortunately belongs to the *non mi ricordo* school, and had never known, or forgotten, what had become of everything and everything. He believed this, and thought the other, but knew nothing.—AN UNFORTUNATE STOCK EXCHANGER, Nov. 1.

\* G. D. (Old Broad-street).—We can fully comprehend the difficulty experienced by you in understanding the accounts and reports read at mine meetings. In most cases they are "slurred" over, or read as a matter of form, not as a means of information. Hence it not unfrequently happens that shareholders, who are determined to know what they pay for, call upon the secretary to read them a second time. Unquestionably, it is with accounts and reports as with other things; if they are worth reading at all, they should be read well.

**MONARCH GOLD—CASTLE DINAS.**—SIR: About two years ago I called at the office of this company, when the secretary (Mr. Readwin), in answer to my questions, informed me that, after paying all expenses incidental to sending out the staff, &c., the directors had a balance of about 1000l., and that the expenses of management here were very trifling; since which I have called at the office, and could gain no information from the clerks (Mr. Readwin not being at home) of the affairs of the company. Can any of your readers oblige by informing me, through your Journal, to whom I can apply for information of what has been done with the balance of 1000l.? so that a portion of it may be returned to the shareholders, of which I am unfortunately one.

Also, where can I obtain any intelligence respecting the Castle Dinas Mine? I consider the shareholders have been very unfairly dealt with, there having been a large sum of money spent in purchasing Berdan's machines, &c., which were of no use on the mine; and although I have written to several parties to know what has been done with the machines, I can get no answer to my enquiry. Indeed, so very badly has the concern been managed, that I do not know who is the secretary.—O. V.: Winchester, Oct. 30.

\* T. G. (Bath).—The communication on the Mining Investment Association shall appear in our next.

**MINERA MINES.**—SIR: In reply to the question in your last Journal, I beg to inform you that the nominal price of the Minera Mine shares is about 50s. each (there are 1800 shares of 25s. each), but there are no sellers at this price. The company, although joint-stock registered, is almost a private one. The shareholders are few in number, and their shares appear to have been taken for permanent investment.—P. P.: Oct. 31.

**MINING INVESTMENT COMPANY.**—SIR: Some time since there appeared in the Journal an advertisement of a company, which proposed to purchase and sell mining shares, on such principles that no loss would accrue to the fortunate participants of the association. A letter was published the following week, throwing some discredit on the projected company. Whether the views of the writer were correct or incorrect I do not presume to judge, but sufficient it was, that shortly afterwards we received, through your columns, a public notification that, under modified regulations, the association would be brought out under better auspices. I am a mining adventurer, interested somewhat largely in these speculations, and I should wish to see that some decisive steps should be arrived at. We have Mining Exchange, yet I am still at a loss to account what benefit has been derived by the general community from it. If we had not a medium of publishing our communications through the Mining Journal, then mineral industry would be at the mercy of the unprincipled individuals who are constantly preying on the public, and are only deterred by the exposures which from time to time are made known through your instrumentality, and for which all those concerned in the mining enterprise of the country owe you a deep debt of gratitude.—ADVENTURER: Nov. 1.

\* A Shareholder (Hutton-court) had better make the enquiries of the committee of management: a letter addressed to them at the office would be laid before the next meeting, at which the several matters would form subject of investigation.

\* M. net (Cambridge).—Arragonite may with facility be distinguished from calcareous spar, by exposing it to heat, before which it at once flies into powder; while the calcareous spar, placed alongside of it, remains unchanged, and even retains its transparency. Its cleavage in a longitudinal direction should always be a sufficient characteristic; the face of cleavage in calc spar, however small the individuals, being always inclined.

**WHEAL ENYS.**—The statement of tin sold in the quarter ending Sept. 29, should have been 15 tons 2 cwt. 9 gr. 17 lbs., amount 9017 6s. 1d.

**WHEAL SIDNEY.**—SIR: Will you have the kindness to correct the sale of parcel of tin in your next. The Journal of Oct. 27 states 5 tons: the following is correct:—  
5t. 18c. 2q. 22 lbs. ..... £71 5 0 per ton ..... £437 17 0  
0t. 1c. 2q. 24 lbs. ..... 49 0 0 per ton ..... 4 4 0

6t. 0c. 1q. 18 lbs. ..... £437 1 1  
—H. E. CHOKER, Purser: 8, Frankfort-street, Plymouth, Oct. 29.

**GOLD MINES—HONOUR THE MEXICAN.**—SIR: At the time that Mr. Guedalla commenced his agitation with the gold mining companies, a considerable excitement was created. There is no question but that through his instrumentality a number of these ephemeral schemes were crushed; there is no doubt also that he was a considerable benefactor to the mining community; and from his merits I do not wish to deteriorate, they have been acknowledged in the form of a handsome testimonial, which was, as I recollect rightly, unanimously accorded to him for the valuable services he had so generously rendered. I would now ask, why, if a reward has been given to one who unmasked the schemes of several of these bubbles, what need of gratitude should be presented to the man who has proved himself a greater benefactor to the commercial world? At the time that Mr. Berdan's machine was showing such wonderful results at the Windsor Works, in the City-road, nearly all our mining agents sent up samples of their ores; there was scarcely a single association but the gold in it would pay for the working, while the copper must necessarily be the profit, need the question be asked, through whose agency this chimera was unmasked?—It was Mr. John Calvert; who, although he proved that gold was found nearly all over England, yet that it would not pay for its reduction; this practical geologist, it must be remembered, discovered a monster lode in Australia, from which singly, by his own hand, he extracted 300 lbs. of gold in one day, but finding his mate too weak, he contented himself with taking the half. He provided for Mr. Wyle, at the Great Globe, for general information, models of the nuggets he had seen at the various gold diggings in Australia. Are such services to remain without a recompense from those who are interested in gold mining? I say, no; let lists be opened; I shall be willing to subscribe my mite, and I have no doubt, if a beginning be made, the end will justify the means.—G. M. E.: Broad-street, Nov. 2.

**FOREIGN VINEYARD ASSOCIATION.**—We are requested to correct two errors which appeared in the report of the meeting of this company, in our last Journal.—Mr. Heath, in speaking of the increase of the sales made by the association, is represented as stating these as, for the last three months, amounting to 6092l.; it should have been 6092l. in excess of the similar period of last year. The gross sales for the period named in King-street alone amounted to nearly 11,000l. In the last clause of the report a similar omission, although of less importance, makes the sentence unmeaning. This should read: "at the same time the directors were empowered to choose any other day instead of Thursday" as the day for holding ordinary general meetings, &c. The latter part is necessary to complete the sentence.

\* No doubt there is gold to be found in the British Isles, but if in sufficient quantities to be of commercial value remains to be proved. *Mining Journal.*  
SIR: Will the British Association, at its next session to the capital of the Irish nation, take into its grave consideration, in full consultation, the best means to extract British gold from its close combination with its rocky relation, by leucitization, amalgamation, cupellation, or any other manipulation? I do not care how it got into the stratification—if by crystallization, filtration, or polarisation—or if it appears from oxidation or vitrification: what I want is information and explanation, by argumentation (without irritation), of the best operation for separation from its formation this certain salvation of this war-engaged nation from heavy taxation, and cause admiration to—TERRY ONE ROCK: Mary-street, Dublin, Nov. 1.

**GREAT HEWAS MINE.**—The secretary, Mr. Emerson, resigned his situation on Wednesday last, the clique having succeeded in carrying their object, and appointing the party generally expected. If the change is for the benefit of the mine, we can only congratulate the shareholders.—NOS TERTORS.

**WHEAL ARTHUR.**—The remarks which appeared in the Journal last week were not intended to apply to any particular individual connected with that company, but were merely general observations on the proceedings of the meeting.

**WHEAL REGENT (LIMITED).**—SIR: The fact of the position of this property must command for it particular attention, and the public, always alive to their own interests, have not failed to seize the advantage presented by this small but undoubtedly good property. When the prospectus was first printed, there was a note referring to the then new discovery in Great Gwinn; since that period, a parcel of ores has been sold, realising 20s. 18s. per ton, and in the course of a few days a large parcel of this said new discovery will be sampled. I advert to this fact merely to show that Wheal Regent possesses all the advantages that may arise from the wealth and working of Great Gwinn Mine, as all the lodes are entire in the property, and some of them worked very near the boundary line of Wheal Regent. It is expected that all the preliminaries will be so arranged, and the machinery fixed, as to have the coming summer to drain the mine, &c. The property is decidedly good, and the shares are now at a pretty fair premium, and will continue to rise as its merits become known.—J. B.: City, Nov. 2.

\* Who's the Dupe?—The lines are not adapted for publication in our Journal.

**SWANPOOL REPORTS.**—SIR: The reports of this mine ought to be published in your Journal every week, so that shareholders living at a distance from the mine may be able to form their own opinion of its worth through the usual channel of mining reports, and I hope Capt. Todd will not think it too much trouble to furnish you with the same.—A SHAREHOLDER: City, Oct. 31.

**CLUJAH AND WESTWORTH MINES.**—SIR: In each of the last two Numbers of your Journal a communication from a correspondent has appeared, headed as above. They are so obscurely worded, that I cannot make out their object. They would seem intended to convey a notion that calls had been made, and no advice or sense given to shareholders; but this would be a palpable absurdity. In the first place, a call can only be made at a general meeting, duly convened. Again, when a call has been made, the purser is too anxious to collect it to neglect giving prompt notice to all concerned.—R. H. PIKE, Purser: Camborne, Oct. 30.

**COLONIAL GOLD COMPANY.**—SIR: I this day sent a transfer, duly executed, to the office of the above company, for registration, when I was informed that I could not have my certificate until Friday, the 9th inst. This unnecessary inconvenience does not reflect much credit on the efficiency of the officials, and from what passed at the London Tavern some time since, might lead one to suspect that there were other motives in this delaying the registration of a shareholder.—J. H.: Nov. 2.

**MINING IN THE TAVISTOCK DISTRICT.**—The "inspections" of a "Mine Agent" shall appear in our next.

**LADY BERTHA.**—We have received several letters remarking on this subject, but beyond the reply of "A Shareholder" to Mr. Peet, we think it better that correspondence should cease for the present. It is clearly a matter which cannot rest without enquiry, and we must await the appointment of the parties before whom the investigation will take place.

**WHEAL TREBARTH, AND ITS MANAGEMENT.**—In connection with the recent discussion on this company's affairs, we have received a long letter from Captain Stephen Osborne, jun., in which he denies all the imputations on his character, and asserts that he is the only underground agent in the mine, and besides superintending that department, has to attend to the work of pitman, carpenter, accountant, &c. In answer to the imputations against him, he states (and each of his statements can be borne out by testimony) that he has been in the mine, not only by day, but several times by night, and has been as many as four days and nights without leaving the mine. As to his laziness, he goes underground four or five times a week, and sometimes more, besides attending to the duties enumerated above. With regard to the dilapidated state of the surface work, economy had been strictly attended to by him, and, having used every endeavour to make the returns meet the expenditure, he was not in a position to decorate the surface, as is the too frequent custom in some mines, but applied the expenditure to exploring the underground department. The driving of a level 4 fms. below the 50 was his suggestion, but was done on account of a conversation which took place in London, and to increase the samplings. He expresses his desire to have had the opportunity to meet the committee at the meeting where those imputations were made, and feels convinced that he could have satisfied them that he had been attentive and diligent to his duties, and most economical in his expenditure.

\* For the accommodation of our City correspondents, communications or reports may be left at Messrs. HANCOCK and SHARP'S, No. 20, Tokenhouse-yard, where there is a box to receive them; but in all instances it will be preferred that they be sent direct to the office, 26, Fleet-street.

## THE MINING JOURNAL

### Railway and Commercial Gazette

LONDON, NOVEMBER 3, 1855.

We have again to recur to that painfully distressing, and too oft-repeated subject—boiler explosions. Long before the deliberations of the inquest jury upon those eight unfortunate human beings who were sacrificed in consequence of the disaster at the Walker Iron-Works, Newcastle, has terminated, so particularly referred to in the Journal of Oct. 20, it becomes our melancholy duty to record two more events of a similar character, the one in the neighbourhood of Edinburgh, at the Birdie-house Quarries, and the other at the Churchbridge Collieries, Oldbury, in Staffordshire. The former has resulted in the loss of three lives, besides placing others in very considerable peril, while, although the latter was fortunately unattended by fatal accident, many persons have been scalded and otherwise most seriously injured. In each instance, locally, the cause has been attributed to defective safety-valves. With reference to the first explosion at the quarry near Edinburgh, at the time of the accident the working of the engine had been, as usual, suspended during breakfast time; we are, therefore, inclined to attribute this accident to a perfectly different cause: it was at this interval that the boiler exploded with an awful crash, throwing down the entire engine-house, and carrying portions of the machinery and boiler to the distance of 200 or 300 yards. With regard to the second casualty, the boiler, which was of large dimensions, and of a globular form, as in the previous case, had been at work but for a few hours in the morning, driving the colliery engine, when that likewise exploded with a tremendous crash. The entire mass was shattered into many pieces, the largest of which was hurled to a distance exceeding 100 yards, when it came in contact with a row of houses, formerly a malt-house; the concussion happily took place against a strong party wall, which presented resisting force, and thereby prevented further accident. On reference to the melancholy catalogue of occurrences like the present, it will be found that they happen at or about meal-times, and most frequently just as the men employed are about resuming their work, or when, after repose, the engine is set in motion.

It, however, very seldom happens that the clear elucidation of the proximate cause of these explosions is actually developed, and much is left to conjecture, as is the case in both of these lamentable instances. Nevertheless, in the matter of the Kibblesworth Colliery explosion, alluded to under the date last referred to, through the indefatigable exertions of the Government Inspector of Mines, Mr. MATTHIAS DUNN, it was ascertained that the disaster took place at the very moment when the engineer was turning on the water, after resuming work. It cannot possibly be supposed that it is under ordinary causes such explosions as those now referred to take place, when boilers, or portions, whose weight must be estimated by tons, not hundred weights, are hurled from their own bed under a gunpowder-like explosion, and are carried to a distance of two or three hundred yards. The bursting of a boiler through defect or excessive pressure is one class of accident, but the explosion of a boiler with a force sufficient to discharge itself from its own bearing is an incident altogether of a different nature.

When safety-valves become as though they were only useless appendages, we are apt to refer the cause of explosion to some uncontrollable latent power, from the exercise of which such untoward and disastrous events have originated. It is, therefore, to a deficiency of water, and to the over-heating of the boiler thereby, that most of these extraordinary explosive accidents are mainly to be attributed, which probably may be oftentimes accelerated by the introduction of a fresh supply at an inopportune moment. Under these circumstances, the very nature of steam is changed, its elasticity becomes suspended, and to this immediate cause accidents of the most frightful character may generally and chiefly be attributed. It is nothing, therefore, but from the great expansion of steam that the cause arises; this it is which occasions the explosion—so in the present instance. Steam, under these circumstances, becomes so compressed that it is more solid than the iron which encloses it, and, in consequence, the boiler lifts and the iron gives way. One cubic inch of water will generate 1728 inches of steam. When a boiler becomes heated to what temperature it is impossible to determine, it may, perhaps, be

even a red heat—if water is admitted, the very instant it touches the iron it increases to 1728 times its own volume. What, therefore, can be the result? The steam, under these circumstances, becomes more solid than the boiler itself. The boiler must give way, and the stronger the boiler the greater the explosion, more especially if the steam is so compressed as to overcome the cohesive attraction of the iron.

It has been remarked by very able chemists that gunpowder is one thousand times denser than the atmosphere. If, therefore, one thousand cubic inches of atmosphere were compressed into one inch, the one inch will be of the same strength as one cubic inch of gunpowder. Steam possesses about one-half the gravity, or weight, of the atmosphere; therefore, if 1728 in. of steam, which can be generated from one single cubic inch of water, were compressed into 1 inch, it would become nearly twice the strength of 1 cubic inch of gunpowder. This fact will illustrate the great expansive force of steam. From these data approximately, according to the size, contents, and area of the boiler, explosive power may be estimated; therefore we need not be surprised that these results ensue wherein tons weight of material are driven to that distance from which yards are computed by hundreds; nor even, if in its way, it knocks down blast-furnaces and chimney-shafts, as in the Walker Iron-Works explosion. Nevertheless this is the power which is too often entrusted to careless and inexperienced hands, who, through ignorance on the one part, or inadvertence on the other, too often fall a sacrifice to their own temerity. Masters have been too frequently admonished on this point by accident, as well as by precept; it, therefore, becomes necessary that, for safety's sake, other restraint than that which experience ought to teach should direct the conduct of establishments where accidents and injury to person, life, and property, too frequently arise, not so much for their own sake as for the protection of their neighbours.

At the Royal Cornwall Geological Society, a model of Mr. COULSON'S Hydro-Pneumatic Apparatus, for the ventilation of mines (described in the MINING JOURNAL of Oct. 13), was forwarded for exhibition, when a discussion ensued upon the merits of the invention. Mr. COUCH considered that the greater the depth of the mine, the greater was the power of ventilation which this machine possessed. It had been intended to exhibit the model in operation, but owing to the deficiency of a supply of water the purpose was abandoned. Mr. W. J. HENWOOD did not desire to depreciate the invention, but with one exception it had been in use, in a modified form, for many years. The novelty in Mr. COULSON'S invention consisted in the glass tube, and this Mr. HENWOOD thought was worthy of consideration. Mr. COUCH considered the glass tube the most efficacious part of the plan. Mr. HENWOOD wished to know how the quantity of air conveyed was ascertained? He had not seen the results of any experiments, and would rather hear known facts. Mr. COUCH had certainly instituted some experiments, and the result was that water running from the tank, in its first passage down the tube, took so little air with it, that at that point it might be considered useless. But when the water passed up the glass tube it would form a vacuum, and by this means a larger portion of the air from the glass tube was carried down into the reservoir below, when the air that had been mechanically mixed with the water was immediately separated, and passed out into a large tube, to be conveyed into any part of the mine. Mr. T. S. BOLITHO considered that Mr. COULSON claimed two improvements by his patent—Firstly, the plan of regulating the quantity of water supplied, and increasing and diminishing the amount of air, and it struck him it was new; secondly, the introduction of the pneumatic trough, which was not new, although that part of the apparatus was well managed. Mr. COULSON proposed to have the mouth of the tube funnel-shaped. After a desultory conversation respecting the gutta percha tubing, and the use of like apparatus in Brazil, &c., Mr. HENWOOD stated that he had never seen a glass tube for passing on a very thin sheet of water: he thought that this was apparently a considerable improvement in the ordinary mode of using the air-tube. Mr. ARTHUR GEARING (the secretary of the Polytechnic Society) has expressed his concurrence with all that has been advanced relating to the ventilating apparatus, similar to that which has been used at Carn Calver.

The adjourned meeting of shareholders in GROUT'S PATENT SOAP COMPANY was held on Tuesday, when, in consequence of Sir THOMAS ROWLAND ROBERTS and Messrs. HACKETT and WEBB having resigned their appointments as directors, Mr. COLE occupied the chair. After the minutes of the last meeting had been read, Mr. HAYWARD (the secretary) requested the proprietors not to confirm them until after they had been discussed. He did not wish to cast any disrespect on the framers of the report, but considered it did not comprehend the whole question; and it likewise appeared to him exceptional in the statistics, which included the losses sustained at Manchester during the early part of the company's proceedings. Mr. HAYWARD then read an account, representing the profits on the various soaps manufactured to be from 15 to 60 per cent. Mr. BULL wished to know from what source the secretary had procured such an extraordinary statement? To which he replied, that if the figures were wrong, the manufacturing books were wrong; but, upon being pressed, admitted that the profit was estimated from the materials used and the soaps produced, not even taking into account the coals consumed or workmen's wages. It must be admitted that Mr. HAYWARD'S method was rather a singular one in calculating profit; when it is known the company have had to pay high rents, taxes, royalties, coals, workmen's wages, and in addition, for so small an establishment, most enormous charges for management. It was urged by several large proprietors, that in consequence of the great increase in the price of tallow through the war, private soap-makers, at the present time, had the greatest difficulty in making a slight profit; and, under such circumstances, it could not be expected that a company, encumbered with a board of directors, and other heavy expenses, could ever hope to make a return to the shareholders, more especially as it had been proved that the "managers" were three or four more than required, and those "pulling one against the other." It was, therefore, truly observed, that although the war with Russia might have something to do with the question, the internal war at Haggerstone and the Minories was the chief cause of their present disastrous position. Mr. BULL, who, it may be remembered, was the chairman of the committee of investigation, urged the meeting to shape their proceedings into something like a business form. He reminded them, that since he had investigated the affair, he had always expressed his opinion as not being sanguine of bringing the company to a successful result; but the shareholders must not lose sight of the fact, that all the preliminary expenses were paid; and from the publicity given through advertising, they were now well known to the world, and had established an excellent connection—the soap being used from the Queen's palace to the cottage. He, therefore, suggested, in the shape of a resolution, that the expenses be reduced, and the company carried on under new directors for six months, by which time, he contended, the shareholders would have an opportunity of ascertaining whether there was any prospect of obtaining a return from the capital they had invested. This proposition was discussed at considerable length, and amongst other recommendations, it was contended that, in the event of the works being carried on, the operations ought to be wholly confined to the manufacturing of fancy soaps.

Mr. VALLANCE, on behalf of several shareholders, suggested a plan which certainly was calculated to settle the question to the satisfaction of every proprietor. He proposed, after consideration and making calculations, to give a certain sum for the whole of the property, including plant, materials, stock, and goodwill, and the company to be at once dissolved. It was then to be estimated what amount per share should be returned to the proprietors; but he would immediately form a new company, under the Limited Liability Act, and invite all those who thought proper to come in under much greater advantages than those parties who withdrew their capital. It would certainly appear that, if Mr. VALLANCE makes a fair offer, his plan is the best that has been proposed; as it must be remembered that at the present time there is a large amount of liability for which every shareholder is individually responsible, and from which those will be relieved who refuse to risk any further capital, by retiring and accepting the dividend upon the winding-up of the old company. It was eventually agreed that a committee should be appointed to confer with Mr. VALLANCE; and it was suggested that better parties could not be selected than those gentlemen who had so ably investigated the affairs of the company:—Messrs. T. BULL, W. HAGELL, J. B. JACKSON, R. W. ALDRIDGE, and W. WHITE, were then appointed the committee, and the proceedings adjourned for fourteen days.

We cannot conclude without cautioning Mr. VALLANCE and others upon the position in which they stood at this meeting. Our representative, who held a proxy from a highly respectable and large shareholder, was informed that he would not be allowed either to vote or take any part in



the proceedings, and was only admitted as a member of the Press. If, therefore, Mr. VALLANCE should come with proxies which are not made out to shareholders, it is competent for any proprietor present to object both to his presence or voting, if the contents of the Deed of Settlement were correctly represented.

**THE TAMAR SILVER-LEAD MINING COMPANY** held their quarterly meeting on Monday, and it is a pleasing duty to call attention to the proceedings, as the company's affairs appear to be now conducted in a perfectly legitimate manner, and to present a remarkable contrast to its previous management. It is only necessary to refer back to the various reports inserted in our Journal about 12 months ago, where the deplorable condition of the mine, and the fierce contests going on, were fully described; and compare those accounts with the proceedings of the meeting, which will be found detailed in another column. Although we are aware the most extraordinary exertion and ability have been displayed, the shareholders could hardly have expected such highly favourable results in so short a space of time. When the present board of directors entered upon the management, they found the machinery in such an unsatisfactory condition that most of it had to be pulled down; indeed, from the state the boilers were represented to be in, we apprehend the lives of the work-people engaged on the mine were every day in peril. Through the large amount expended in repairs during the first three months, the mine was worked at a loss, which had to be repaid, in addition to the balance against the adventurers. Amongst the valuable alterations made by the present directors, may be noticed that, notwithstanding the constitution of the company only requires the meeting to be annual, they determined to call the shareholders together every three months; and upon the present occasion the accounts showed a balance in favour of the company, including 22997. 13s. 3d. standing to the credit of the reserved fund, amounting to 34437. 11s. 4d., with every liability paid up to the closest possible period. Although there still continues to be a large expenditure for repairs of machinery and extra surface operations, which are included in the cost-sheet, the net profit by the sale of ore for the three months was nearly 10000; and the pleasing intimation was given that by next January they expected to declare a dividend, and have the reserve fund of 30000, required by the constitution of the company deposited at interest. To attempt to colour such management would be "to paint the lily, or gild refined gold."

The meeting of shareholders in SORTIDGE CONSOLS, on Monday, was distinguished by unanimity of feeling and general good understanding; and, with the exception of a motion for publishing the accounts a few days before each meeting, everything passed off with the greatest *celeritate*. The Chairman was complimented, the secretary extolled, and the captain pronounced thoroughly honest. This interchange of courtesies was evidently not the result of hollow flattery, but the hearty tribute of satisfied shareholders to those who had managed their affairs with judgment and efficiency. It is true that Sortridge Consols, as a mine, presents the most satisfactory appearance; but it is also equally true that, had it been badly managed, it might have been worked in vain. It is, therefore, a source of pleasure to revert to undertakings so conducted, were it only to point a moral to others which drag their slow length along, until worn out by premature decay. The distinguishing feature, however, of the meeting was the thorough earnestness of the shareholders. Unlike most mining speculators, they appear to have looked after their own affairs, and were equally as well informed on their present and prospective position as the captain or committee. Mr. MUNDAY entered into an interesting detail on the healthy state of their finances, and gave the results of a personal visit to the mine; and another shareholder read an extract from an examination he had caused a competent party to make, confirming the captain's report on its prolific character. Indeed, the whole proceedings were characterised by a good taste and intelligence, which need but emulators to make mining and mining investments above the suspicion which, unfortunately, now too often attends them.

The PENDEEN CONSOLS meeting was held on Thursday; and, from the promising appearance of the mine, it must be regretted that any attempt should be made to alter a system of management which hitherto appears to have been most ably conducted. Mr. GREENWOOD (the purser) occupied the chair, and laid before the adventurers a clear statement of accounts; but one of the shareholders contended that they ought to have a committee and offices in London, with the addition of a secretary. Mr. POUULTON observed, that the present committee consisted of Mr. NICHOLAS HAINLEY, engineer, of Hayle, Mr. HUMPHRY WILLIAMS, the banker, of Turo, Mr. J. C. LANYON, an independent gentleman, of Redruth, Mr. GREENWOOD, their purser, and Capt. JAMES EVANS, of North Pool Mine, their manager; and he appealed to the general body of shareholders whether, with such an excellent committee, who had brought their affairs into so satisfactory a position, any alteration should take place. Mr. POUULTON was ably supported in his argument, one of the adventurers stating that he was deeply interested in mining, and knew that the members of many London committees had never even seen a mine. It was also urged that, if the alteration proposed should take place, at the very lowest calculation, it would entail an additional expense of 137. 13s. per month. Mr. GREENWOOD could not adduce a stronger proof of the ability of the present committee than the fact that considerable reduction had been made in the accounts through the vigilance displayed in their examination; and Mr. WILLIAMS, the banker, who was certainly an independent party, had never failed attending a meeting. Although the proposed alteration met with one or two supporters, they did not venture to put it to the vote; and, whilst the affairs of this company are conducted as they seemed to be at the meeting to which we are alluding, it certainly would not appear politic to make any alteration.

In another column will be found a report of the fourth annual meeting of the ANGLO-CALIFORNIA GOLD MINING COMPANY. The report and accounts have been previously published, and these it is not necessary here to allude to. Owing to the want of funds, the works for some considerable period have been suspended, but by the energy of the directors this has been obviated. This company, as well as several others, has suffered through want of experience on the part of the local managers, yet under all circumstances it has maintained a respectable position in the market. To those who have watched the progress of the company, it must have become evident that had not the directors, when the shareholders held back, obtained the necessary amount for carrying on operations, the company must have been dissolved. At the meeting, a question was captiously raised as to the amount of interest, and one of the shareholders on this subject was most grandiloquent. The Chairman afforded, however, such satisfactory explanations that the shareholders unanimously agreed with the board. In the course of the discussion, there seemed to be on the part of some individuals a wish to laud the new directors at the expense of the old board. These gentlemen came in at the eleventh hour, and although they may have been efficient colleagues at that period, yet they are not aware of the difficulties which the other directors have had to contend with, from the time of LUKE WILLIAMS to the present period. Our intention is not to comment upon persons, or any party. The season for commencing operations is now about to take place; the machinery is in good order; and we trust that in the course of a few months both directors and shareholders will be satisfied with the results.

**STEAM-BOILER EXPLOSIONS.**—The usual monthly meeting of the Association for the Prevention of Steam-Boiler Explosions was held at the offices of the secretary, Mr. Henry Whitworth, Corporation-street, Manchester, on Tuesday afternoon. The chief inspector, Mr. R. B. Longridge, presented the monthly report of the proceedings of the sub-inspectors and himself. The following extracts from the report have been furnished to us:—"Since the last monthly meeting, the works of 142 members have been visited, and a total of 405 boilers inspected. Three of these boilers have been found in a dangerous state, from defects in the furnaces, but the remainder appear to be in good working order. The mountings, with few exceptions, amongst which I may particularly mention the pressure-gauges, are in a satisfactory condition. There have been no cases of explosion in boilers under our inspection, but we have been called upon to give evidence relative to the fatal accident which occurred on the 13th inst., at Miles Platting. This accident, of which you have already received a report, was evidently occasioned by deficiency of water; and I only allude to it again to point out the importance of providing all boilers, but more especially those with internal flues, with fusible metal plugs, which, if properly constructed, and judiciously placed (which is seldom the case), will to a great extent, if not entirely, prevent explosions from this cause."

Of the engines, 118 have been indicated. Some of these diagrams show defects in the valves, which must occasion great waste of power. In such cases attention has been called to the subject, and the necessary alterations suggested."

#### CENTRAL WALES—SHREWSBURY, HANWOOD, AND WELSHPOOL.

Every day gives fresh hope and vigour to this very feasible project for supplying this important link in the Milford Haven chain of railway communication, and additional strength is derived from the weakening tendencies of the two rival projects in the field. The little merit possessed by the Rea Valley and Crigion schemes is not likely ever to be elicited by a parliamentary enquiry, for the smothered jealousies long known to exist among the promoters have at length ripened into strife and personal recrimination. Rumour boldly speaks of a terrible discovery, in the shape of a secret "misdirected" correspondence, full of awfully delicate and awkward disclosures, which has effectually exploded the hitherto apparent *entente cordiale* of the leading spirits of the projects in question. If our information be correct, the friends of these mad schemes can lay claim to little patriotism in their support of them. In some instances, the appropriation of land of little value, for which a high price is expected, and in others, station accommodation of a personal character, without being also of public utility, are the chief grounds of support; and we confidently predict that, unless stronger and more tangible reasons can be urged, there is not the shadow of a chance of parliamentary sanction being obtained for the construction of either line.

And this is not all. The reckless and unscrupulous manner in which the two schemes are advocated before the public, by the leading representatives, is most damaging. For a time, flashy statements prevailed with the less intellectual supporters, who eagerly contributed their quota towards preliminary expenses; but the "blind" is fast being discovered, and, in all probability, long before the time for the deposit of plans arrives, scarce a vestige of these two mushroom companies will remain. In fact, many of the supporters have already transferred their interest to the legitimate line, promoted by the solicitor and engineer of the Oswestry and Newtown Company, the plans and sections for which are in a state of great forwardness.

A direct communication with Shrewsbury is indispensable to the interests of Montgomeryshire, and it was only on the distinct understanding that such an undertaking would be promoted by the company that the majority of the shareholders of the Oswestry and Newtown were induced to join that corporation last year, as will be seen by the annexed extract from an address issued by the Welshpool proprietors in the Oswestry and Newtown, prior to the late extraordinary general meeting of shareholders:—

A railway to Shrewsbury is generally admitted to be essential to the prosperity and convenience of our district. A large and most influential party amongst our supporters looked upon it as more needed than the line to Oswestry. Without their aid, we should not have had the slightest chance of carrying our bill. To secure that aid, we, at the commencement of our proceedings in November last, bound ourselves by numerous written communications, and resolutions at public meetings, to facilitate and promote thereafter the Shrewsbury link. Our Oswestry line has been laid out so as to cross the Severn twice near Buttington, in order to subserve the making of that link, and a clause was inserted in our Act for the same object. It was by means of this compact that the two parties were united—that the supporters of the Shrewsbury line withdrew their opposition, and induced the London and North-Western Company not to press theirs; though our line, so long as it was confined to a communication with Oswestry only, would be highly prejudicial to their interests, as it would injure the canal, and convey all the traffic to the Great Western System. And, as regards our capital, when we determined, in our first application to Parliament, to give the preference to the Oswestry line, we much relied on receiving assistance from parties interested in the Great Western. In this, however, notwithstanding the great benefits our railway will confer on them, we have been disappointed; and we owe, most materially, our success to the assistance received on the faith of the compact of November last, from the supporters of the Shrewsbury line, in subscriptions to our share-list. Independently of the obligation of carrying out this compact, the making of the Shrewsbury link is essentially necessary to the prosperity of our company and of our district. Without that communication, our Oswestry line will, after the making of the Shrewsbury link, be in the hands of the Great Western Company; with the Shrewsbury communication, we shall be able, by means of traffic arrangements, to obtain for it its fair value, which will secure at once remunerative dividends on our shares, the raising by legitimate means of the requisite capital to make the Shrewsbury link, and the remainder required to complete our present line. It will also ensure the carrying out of the extensions from our line beyond Newtown, which, to us, will be a highly important source of revenue, and to our district the greatest benefit; but, without it, no assistance can be had of any kind for any such extension. The making of the Shrewsbury link is opposed to the interests of the Great Western Company: it will deprive them of the monopoly of our traffic, and insure the extension of our line to Milford Haven. That extension is opposed to their interests, because it would divert traffic now conveyed along their South Wales, and Gloucester and Hereford, and the Shrewsbury and Hereford Railways, and prevent the making of the Craven Arms or Kingston lines, either of which would ensure to them the South Wales traffic, and be of great benefit to them, as was shown by the discussion at the last half-yearly meeting of the Shrewsbury and Hereford Company.

The reading of the above at once discovers to us the secret of the Oswestry opposition to a Shrewsbury extension of the Oswestry and Newtown line. Such an undertaking not only threatens to lessen the importance of this insignificant border borough, but it provides for a diversion of all "through" traffic northwards by the Shrewsbury and Crewe (about to be constructed), and southwards by the Shropshire Union and North-Western Railways. This wholesome source of competition is not in keeping with Paddington tactics, and, therefore, the emissaries of the Great Western—that monster of mismanagement—are busy at work with the good people of Oswestry, exciting suspicions and jealousies having no foundation in truth. They should remember that, after the most liberal promises, made by the officials of the Shrewsbury and Chester, that the town would be provided with a suitable and convenient station, how completely their fondest anticipations have been disappointed. Instead of a station of architectural pretension, a small, miserable shed is all the town can boast of. And now that the line has fallen into the hands of the Great Western, they are not likely to be better treated. Railways are not to be prosecuted or impeded to meet the interests of insignificant towns or villages; and whether the Oswestrians support or oppose a Shrewsbury line, it is safe to be made. In this view we are supported by the testimony of practical men of great railway experience, who have devoted considerable attention to the matter.

But a Shrewsbury line is not a mere question of district accommodation; if it were, we should certainly leave the matters in dispute to be settled by the parties locally interested. This is the favoured route for a Milford Haven line, and it is a matter of some importance that the grand point for the diversion of traffic should at least have the merit of a choice of the means of further transit. Oswestry is on the Great Western system, and it possesses no other means of railway outlet whatever; whereas Shrewsbury is the centre of a great system, offering varied means of communication with the north and south, which is the only sure check to monopoly. And, moreover, while the direct Shrewsbury route is the most superior for all traffic to and from the south and midland districts, when the Crewe line is made, the distance northwards will be little in excess of the mileage by way of Oswestry.

**GEELONG AND MELBOURNE RAILWAY.**—This railway, now in process of formation, offers considerable advantages to its shareholders. The cities of Geelong and Melbourne, between which it is constructed, have not yet been founded 20 years, and it is less than that time since the first Government land sale took place; but such are the natural advantages of their situation, that they now possess a population, the one of 100,000 and the other 50,000 souls: such a result is without a parallel in the annals of colonization. They are the shipping ports of Australia Felix, and surrounded by a tract of country which, for the extent and richness of its agricultural land, may be pronounced unrivalled in the world. This railway has been projected under the most favourable auspices. The Government has not only given the fee simple of the land through which it passes, but has guaranteed the payment of 5 per cent. for 21 years upon the whole of the paid-up capital, on which interest will be paid in this country as well as in the colony. Notwithstanding the high rate of interest ruling in Australia, the colonists, as a proof of their estimation of this railway, have themselves taken up two-thirds of the capital. Shares to the amount of 60,000, have been allotted and paid for in this country within the last few months, and the remaining 3000 shares are now offered to capitalists: should they not be taken up shortly they will be re-transmitted to Australia for distribution amongst the colonial shareholders. The capital of the Geelong and Melbourne Railway Company is 350,000; the line, 45 miles, is almost a dead level throughout, and will require no expensive cuttings, or viaducts, and but few bridges. At the last meeting of the shareholders, which took place at Geelong on July 3, it was officially stated by the board that the railway would be constructed within the original estimate, and could be completed within seven or eight months, that 220,000, had already been expended in England and in the colony, and that about 110,000, were required to complete the works. Even with the present traffic, it was confidently expected that the line, when

completed, would yield a return of at least 20 per cent., but it must be borne in mind that whilst in this country it is almost impossible greatly to increase the traffic upon any railway yet in Australia, and between two such cities, the limits to its extension were almost boundless; and when the rise and progress of the cities of Geelong and Melbourne in their youth are considered, what may not be expected from them at maturity?

#### IRON AND COAL TRADES OF YORKSHIRE AND DERBYSHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

Nov. 1.—The causes which are operating prejudicially to the general prosperity of commerce, are at length being slightly felt in the Iron Trade, which is not so active as it was a month ago. The reported difficulties between our relations with the United States seem to have produced the most apprehension with regard to its effect on the demand for iron. There is an almost total absence of speculation, purchases being conducted with extreme caution, and for immediate requirements. There is not so great a demand for pig-iron, and prices are expected to be easier. The freedom from import duties of castings and bar and sheet iron by the French Government, is considered to be of some advantage to the trade, though to a considerably less extent than in South Staffordshire.

The position of the Coal Trade is about the same as last reported. Now that the inclement weather is set in, the demand for coals has proportionately increased. The demand for distant markets is great, and there is nothing to fear so long as the men remain contented with the present rate of wages paid to them, which appears to be satisfactory.

The Steel Trade is dull and inactive, and the enquiry for Sheffield cutlery is limited.

On Wednesday there was a meeting, at Wicksworth, Derbyshire, of the ancient "Great Barmote Court." Mr. J. C. Newbold, the steward, informed the miners that there was no business to transact. After an adjournment, a number of the miners partook of dinner, and several toasts were drunk, during which the speakers made some observations respecting the ancient miners and mineral customs of Derbyshire. Mr. Newbold took occasion to observe, that in some districts of Derbyshire lead mining was not progressing so favourably as could be wished, but this he attributed to the want of energy and perseverance; through the means of machinery, and the improvements of modern science, he thought they might effect great results. The ancient miner, known as the *old man*, had, somehow or other, been more clever and cunning, in some respects, than the *new man*, or miner of this day; but, although he went where we could not go, he had, after all, scarcely accomplished more than merely scratching the surface of the mineral field, leaving the wealth at greater depths to succeeding generations. There was plenty of lead in Derbyshire for ages to come, which, by our improved mechanical powers and extended knowledge, would be from time to time discovered and obtained. The period had now arrived when men of wealth should unite and provide capital for mineral operations on extended scales in such places, and in such manner, as might be pointed out by men of skill, practice, and probity, with many of whom rested the knowledge of promising works, and with whom such valuable knowledge must still rest, until capital shall be forthcoming to work such mines effectively, and render that which was now inutile a source of profit to the adventurer, industry and prosperity to the miner, and eventually of solid benefit to the country, as all profitable minerals raised constituted so much wealth produced. In Cornwall combination had been tried, and with the best results. The capital should be invested in their own mines, so as to give the agent, the engineer, and operative, a fair field for his labour. The toasts included—"Peter Arkwright, Esq., as lord of the field;" "Success to mining," coupled with the name of W. Cantrell, Esq. The Chairman gave "The mineral agents," eulogising them as men of experience and strict integrity, and who occupied an important position, as forming the connecting link between the capitalist and the miner. Mr. Rosewarne, as the oldest agent present, briefly replied, to the effect that he quite approved of the sentiments expressed at the meeting, and trusted that himself and brother agents would, by their proceedings here, place themselves in the road to another and a better world.

In the case of Armitage, Frankish, and Barker, steel merchants, of Sheffield, a dividend of 6s. in 12 has been declared.

#### THE IRON AND METAL TRADES OF SOUTH STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN BIRMINGHAM.]

Nov. 1.—The reports received to-day from the district are rather conflicting. By some the Iron Trade is represented as buoyant as it was at the beginning of the quarter, and prices quite as firm; whilst others, and not the least informed, say there has been very little done during the last ten days, but there is rather a tendency to improvement to-day. We have not had what can be fairly termed a giving way in prices, but pig-iron can be bought for less than it could be a week ago, and needy holders will not stand nice about making a reduction upon other descriptions of iron. The houses, however, in the trade will not hear of any alteration, nor is there any reason why they should reduce. They have orders sufficient to carry them well nigh over the quarter, and can get through satisfactorily, if they are not prevented by a collision with the men, which will require firmness and prudence to avert. The notice of the men at some of the works expired on Saturday last, and they are out at two of the establishments, with a threat of a more general strike if their demand be not complied with. In consequence of this state of things, there was a numerous meeting of the iron and coal masters held yesterday, at Wolverhampton, Mr. Philip Williams, Chairman of the body, presided, and there were present the representatives of the leading houses. The question of the puddlers' demand was fully discussed, and all the arguments for and against it having been considered, it was unanimously pronounced unreasonable on the part of the men. It was held, as I have before noticed in my letters, that the men have been receiving during the last two years wages equal to bars at 104; and it is well known that, at present prices for manufactured iron, higher wages cannot be given. It is true provisions of all kinds are high, and that is the only argument the men can advance; but if they suffer on that account, their employers have now seriously increased difficulties to encounter in procuring their weekly wages. It is unpleasant to contemplate the enormous rate of interest which manufacturers have to pay weekly for the cash wherewith to carry on their works; and if the men, by their demand, add another 10 or 15 per cent. to that interest, the inevitable result will be the stoppage of the works. Indeed, so certain are the masters of this result, that they have, in justice to themselves, and most certainly not less to the men, decided upon resisting the required advance. The following is the resolution agreed to at the meeting yesterday:—"That, considering the position of the iron trade, as affected by the present monetary state of the country, and also the fact that the wages now paid to puddlers are higher than the usual proportion to the declared price of iron, the claims of the puddlers be most strenuously resisted." By resistance I understand the masters to mean, that if the hands now out do not return to work on or before Monday week, the whole of the works will be stopped, and, if necessary, a general suspension of the trade will take place. It is, therefore, to be hoped the men will not be so unwise, at this season of the year, as to throw themselves out of work, and reduce themselves and families to the distress consequent upon such a course. It is, however, to be feared that evil counsels may prevail: already the bread cry has been raised. On Sunday last a numerous meeting of the working classes was held in the neighbourhood of the London Works, Smethwick, when they were addressed by a number of Chartists, and the proceedings were adjourned to Sunday next, when the gathering is to take place in Spon-lane, West Bromwich, or some other part of that locality. With this additional element of discontent now unhappily being introduced by designing persons, it is to be feared the men may prove inaccessible to reason, and continue the strike they have just commenced.

Relative to the issue of fresh orders for iron, it must be observed that they are now very limited, particularly for the American market. The houses here in that trade are apprehensive of a misunderstanding with the United States, and they are certainly waiting with no small anxiety the reception of the fleet in the American waters; and what is here viewed as even much more dangerous, the recent extraordinary severe strictures of the *Times*. Mr. Goddard, an American, and for many years a merchant here, has written to-day in one of the local journals upon the subject, and ridicules the idea of the alleged filibustering expeditions to either Ireland or Cuba, but thinks that certain conduct on the part of England will lead to a war with his country. The affair, on the whole, has produced an unfavourable effect, and every arrival from America will be looked forward to with much interest until the threatened storm blows



over. There has been a tolerably brisk demand for iron for the French market within the last few days, in consequence of the removal of certain restrictions at the French ports.

In the General Metal Trade there has not been any change during the week. Copper is firm in price, although the demand does not reach the average, owing to the decline of orders at some of the large manufacturing houses.

The General Brass Trade is dull, even in the chandelier branch, which is generally active at this season; the hands are not well employed.

The war continues the main stay of many important branches, and orders for almost every description of arms continue to be sent down in abundance. In mentioning firearms, I may, perhaps, notice a trial of "Brand's" new patent breech-loading gun, which took place here on Saturday last, on the Government ground. The shooting was conducted under the direction of Mr. Taberner, of London, the inventor, and was very successful. Several bull's-eyes were made at 800 yards distance, and the target was reported superior on the day's firing to anything of the kind witnessed at Enfield during the last twenty years. The right is secured in all the great continental and American States, and the gun is considered perfect by the patentees.

Measrs. Edward and Walter Howes, of Birmingham, have during the past week specified their patent (through Mr. George Shaw) for improvements in carriage lamps:—

This invention consists, firstly, of a method of attaching carriage lamps to carriages. Carriage lamps are ordinarily attached to carriages by an arm fixed on the carriage, carrying a socket, into which the candle-tube of the lamp drops; or carriage lamps are sometimes fixed to carriages by means of an arm inseparably connected to the carriage and the lamp. In attaching carriage lamps to carriages, according to this invention, the arm which is fixed to the carriage, and to which the lamp is secured, is made of a curved figure, and has its end made square, angular, or wedge-shaped, and perforated with a hole. A staple, or recess, in the lamp, receives the before-mentioned end of the arm. The staple, or recess, has a figure corresponding to the shape of the end of the arm. When the end of the arm is inserted in the staple or recess, in the lamp, a screw passing through the lower part of the staple, enters the hole in the end of the arm, and securely fixes the arm to the lamp. The screw is prevented from turning round by the jarring of the carriage by means of a spring, through a slot, in which the thumb-plate of the screw passes. Instead of a spring, a small chain, connected with the bottom of the lamp, may be connected with the thumb-plate of the screw, so as to prevent the screw from turning round. This invention consists, secondly, in fastening the nozzle of carriage lamps. Instead of fastening the nozzle—that is, the cone—against which the top of the candle presses, by means of a bayonet fastening, the inventors fasten the same by means of a spring catch fastening, which is more convenient in use than the ordinary bayonet fastening.

## STOCK, MINING, AND RAILWAY SHARES IN IRELAND.

[FROM OUR CORRESPONDENT IN DUBLIN.]

Nov. 1.—The Stock and Share Markets have been very steady during the week; and although we had no prices from London to-day, Consols advanced 5s., owing to some large purchases. The highest price of Consols during the week was 87½, and the lowest 86½. The share market does not present any new feature of importance. Mining Company of Ireland shares were more in demand, but those of the General Mining Company, though in demand last week at 2½, were done yesterday at 2. Railway shares were well maintained. Those of the Dublin and Wicklow slightly advanced, in consequence of the completion of the line to Wicklow, but are now somewhat weaker. Great Southern and Western have risen from 50½ to 51, and Midland Great Western from 48½ to 49. Belfast Junction have fallen 10s., and Irish South-Eastern 5s. The following are the latest prices, as usual:—Consols, 87; New 3 per Cents, 87½; Hibernian Bank, 33½; Royal Bank, 19; National Bank, 31½; City of Dublin Steam (50s. paid), 30½; ditto (of 1836), 27; Dublin and Liverpool Ship-building Company, 46; Grand Canal Company, 40; Patriotic Assurance, ex div., 8; General Mining Company, 2; Mining Company of Ireland, 13½; Belfast Junction Railway, 40; Dublin and Wicklow, 61; Great Southern and Western, 50½; Irish South-Eastern, 5½; Kilmory Junction, 61; Midland Great Western, 48½; Waterford and Limerick, 19½.

It is in the highest degree gratifying that the traffic receipts on the two great trunk lines of Ireland—the Great Southern and Western, and the Midland Great Western—continue to maintain the advance established over last year. On the former the increase has been 19,133l. on 17 weeks, over 1000l. per week, and on the latter 6016l. on the same period. These returns cannot fail to maintain the prices of shares firmly at a good figure.

An important decision has just been given by the Commissioner of Bankruptcy, in the case of Burke, where the assignees of the estate were endeavouring to exclude the claim of a stockbroking firm in London for 3100l., on the ground that the transactions of the bankrupt being for account, were illegal, according to the Stock-Jobbing Act. The Commissioner, however, has decided otherwise, and has allowed the claim of 3100l., on the ground that the London firm, who were Burke's correspondents, were out of pocket that amount, and could not have been aware the bankrupt was speculating on his own account. This decision cannot be looked upon as other than wise and just, as it would be monstrous to suppose that stockbrokers should be excluded from the privilege accorded to every one in the realm—viz., the power of recovering just debts in a court of law: indeed, as a precedent, the judgment which has been delivered is most important to those interested; and it may be well to know that the English Stock-Jobbing Act does not, if I am rightly informed, apply to Ireland. As business for account was comparatively only recently introduced into Dublin, and if the small amount of business done in that way be not increased, there would seem but little necessity for its being extended here.

The sittings of the Incumbered Estates Court have now been resumed, after a vacation: 36 estates will be put up to auction between this and the 16th inst., but it would be useless to enumerate them all; for such of your English capitalists, however, who desire investments in property to be sold under this Court, I have selected the following, as being the largest and most important estates. On the 13th the estate of Sir R. Keane, Bart., in the county Waterford, the rental of which is over 2000l. per annum. On the same day, the estate of William M-Williams, in the county of Armagh; gross rental about 1400l. per annum. On the same day, also, the estate of the Earl of Carrick, in Limerick; gross rental about 1800l. per annum. On the 15th, the estate of Rebecca Hartford, in Tipperary, the gross rental being about 2500l. per annum. On the 16th, the estate of Wm. Pennell and others, assignees of Lesley Alexander, in Londonderry, the gross rental of which is about 5000l. per annum. All these estates are divided into lots to suit purchasers, and are, I think, the principal ones deserving of notice.

## THE METAL TRADES AND INDUSTRIAL PROGRESS ON THE CONTINENT.

[FROM OUR PARIS CORRESPONDENT.]

Nov. 1.—The decline noticed in my last for pigs for fusion has been followed by a slight fall in the price of every other description of iron, but there are still a few holders, who will not sell at less than hitherto. Copper remains the same, tin has fallen, and zinc is less in demand, but lead is still much in request, the cause of which is stated to be the purchase for export to America. At Saint Dizier, lower prices have been accepted, and the terms for payment have in many instances been easier. At Charleroi, the position of the metal trade continues satisfactory. The *Journal de Charleroi* states that the greatest activity prevails in their manufacturing, and there are rumours of new bargains for both pigs and rails being in the course of negotiation. The result of this state of affairs is, that prices are well maintained for all descriptions of iron, and the nail trade is particularly active. There is nothing new in the coal trade, except, perhaps, that the recent advance is becoming more general.

An elaborate analysis of the report just issued by the Minister of Public Works, on the Mining Industry of Belgium, appears in the *Moniteur des Intérêts Matériels*, from which it appears that Belgium is not only extremely rich in mineral coal, but contains numerous deposits of iron, of which some are of a very superior quality; this circumstance gives Belgium a distinguished place amongst those European states which supply the two principal elements of modern industrial progress—iron and coal. Independent of these, considerable quantities of zinc and lead are found, but in other metallurgical products the soil is poor. In Belgium the right to work mineral substances is almost always conceded; but the exploration of iron ore is, in a great measure free, and worked by the respective owners of the surface, or by their licensees. The number of concessions for working coal, iron, lead, zinc, copper, manganese, pyrites, and alumina schist, amount to 308, covering a surface of 150,294 hectares, or about 375,500 English acres. To these concessions must be added 55 colliery undertakings, tolerated without definitive concessions, comprising a surface of 26,603 hectares, or 66,500 acres; these, however, may be said to work rather on sufferance than free. Besides the mines worked with

or without concessions, there is a large surface not worked at all, and much that has not even been explored. The entire coast of the northern sea, and inward for a considerable distance, is of a very recent formation, and contains no mineral, with the exception, perhaps, of some small portions of iron. This district comprises the two Flanders, the provinces of Antwerp, and those of Brabant and Limbourg. Beyond these limits the country rises gradually, and there are found more ancient formations; the coal measures, the slate formations, &c.; and in this district are found the metalliferous deposits. This mining country comprises the four provinces of Hainaut, Liege, Namur, and the Luxembourg, forming the whole of the south-east of Belgium. The coal basin is usually divided into seven groups, which are named respectively the Mons, Centre, Charleroi, Namur, Luxembourg, Huy, and the Liege coal fields. The three first and the Liege fields are the most important, both for the quantity and quality of the coal they produce. Iron ore, also, exists in considerable quantities in the south-east of Belgium, in the provinces of Hainaut, Namur, Luxembourg, and Liege. The lead mines are disseminated over the Entre-Sambre et Meuse, the Luxembourg, and principally along the River Meuse, towards Ardennes. Zinc is found towards the east, and increases into a considerable mass at Moresnet, a neutral territory between Prussia and Belgium. Copper and other metals exist in very small quantities.

In 1841, the mean production of the collieries was 8756 tons for each pit; but, in 1850, this was raised to 14,266 tons. In 1841, each group of 100 miners produced annually 10,712 tons; although, in 1850, their labour produced 12,152 tons. The quantity of coal produced by the seven groups referred to above amounted, in 1850, to 5,820,588 tons; the expenses of which have been nearly as follow:—Salaries to workmen, 889,546l.; other expenses, 722,878l.;—1,612,424l.; whilst the gross amount realised by sale was 1,758,855l., showing a net profit of 146,431l.

The iron mines conceded have produced 130,392 tons of rough ore, giving 68,088 tons when washed, of the value of nearly 20,000l.; whilst the free workings have produced 388,881 tons of rough ore, giving 231,084 tons when washed, of the value of 76,640l., making a total of 96,640l. The number of hands employed to obtain this result was 665 for the concessions, and 2250 for the free workings. The quantity of lead produced had, in 1850, increased to 3854 tons, realising 19,100l. The exploration of this metal shows a remarkable increase, as in 1841 the production was but 34 tons, of the value of 320l. It is in but one mine, that of Bleiburg, where *machines d'exhaure* are used; but there the operations are carried on with the assistance of two steam-engines, of 250-horse power each, and an hydraulic wheel of 200-horse power. For the manufacture of zinc, 62,193 tons of calamine have been produced, of the value of 119,850l., and 7308 tons of blende, worth 8350l. This branch of industry has given employment to 2139 men. It must be remarked, that all the figures given in this *résumé* relate to the year 1850, which is the latest date referred to in the report just issued by the Minister; if, therefore, the present position of mining industry in Belgium is desired, it will be necessary to take into consideration the five years of progressive increase, and the improvements effected in almost every description of machinery. This subject will be resumed at a future date.

In the Industrial Exhibition are some beautiful copies of ancient statues in bronzed zinc, from the *Vieille Montagne* Company. Both Prussia and Belgium exhibit numerous castings in iron and zinc; the latter being generally bronzed by electrical deposit, and not with bronze powder, as is so general in England. M. Gonon, of Paris, exhibits a most extraordinary casting of a bird's-nest, built in the midst of low bushes, with a bird darting out of it, as if to drive back a snake, which is winding itself up the broken stump of a tree towards it, whilst a weasel is bristling and showing its teeth at the sight of the intruder. The ground is covered with ivy-leaves and wreaths, most gracefully wrought; and a fly, which is also included in the group, appears as natural as if it lived. All who examine it declare it a trick, until they discover the impossibility of detecting a join. The exhibitor most positively asserts that the piece was really produced at one throw, but, of course, refuses to give the slightest clue as to how this seeming impossibility was obtained.

The traffic returns on French railways during the first nine months of 1855, show a gross amount of 7,848,112l., being an increase of 2,204,154l. on the corresponding period of 1854. The average length of road worked during that period was 4923 kilometres; and the entire length on Oct. 1, was 5335 kilometres, being 789 more than at the same period of 1854. A meeting of shareholders in the Mines de la Grand-Combe is convened for Nov. 22, at Paris. During the month of September, 47,798 quintals of rails were imported; and during the first nine months of the year the importation reached 315,832 quintals.

## MANUFACTURE OF COKE.—SCIENCE IN ITS APPLICATION TO COMMERCE.

Identified as the use of coke has become with the blast-furnace, and every operation wherein the smelting process is carried on, also with foundries, railways, and in the greater or lesser degree with every department of manufacture where metal is employed, locomotion progresses, or wherein the transit of passengers, goods, or merchandise is involved, any improvement must be received with satisfaction, more particularly where tending to economise either time or cost in the process of its manufacture. The whole system of manufacturing coke is at present very imperfect: besides losing the volatile combustible substances, which under new adjustments might be made of much value, an immense quantity of ammonia is lost, through being thrown or discharged into the atmosphere. Ammonia and its salts are every day becoming more and more valuable in reference to the purposes of agriculture. It is only on the grounds of costliness that their use is not more disseminated for the purposes of every kind of cereal productions. By some very slight and trifling alteration in the construction of coke ovens, they might easily be so formed as to economise much of the nitrogen which is obtained from the coal, and which now passes off, and escapes in the atmosphere in the form of ammonia.

Coke ovens, however, hitherto have been, with only certain variations, uniformly made after the rudimentary principles of one general design. Coke ovens have hitherto been coke ovens, and whether they appear clustered together adjacent to blast-furnaces, or combined contiguous to railway stations, dépôts, or manufactories, very little difference is perceptible either in the elementary principles of their design or purpose. It is difficult to ascertain the vast amount of matter that arises from the carbonising of coal, and which now passes off in the volatile form of vapour. This material, if properly economised, might be redeemed, converted, and made available for chemical uses, in the ordinary purposes of life, or even in the re-production of that vast amount of essentially vegetable matter required under the form of herb, plant, or grain, year after year, to be derived from the cereal kingdom. In connection with this fact must be borne in mind more particularly that thousands of tons of coal are now converted into coke, formed in mounds and heaps. The next essential to the observance of a due economy in the manufacture of this staple commodity in mineral operations or locomotive transit is time, which redeemed in the process of manufacture is so much acquired for the bulk. If, on the one hand, through the aid of modern improvement, we are enabled to produce coke in 24 hours, or even in 36 hours, which under the ordinary method required 84 hours, and in some instances 96 hours, to be occupied in the process of carbonisation, and if this coke combines and possesses all those qualities which are required to arise therefrom by due combustion, differing only in degree, as influenced by the quality of the coal used in the manufacture, then the mass to be converted may be more than doubled in the same interval of time. If, on the other hand, from the same weight of coal, which usually yields about 65 per cent. of coke, 78 or 80 per cent. of coke should be secured, a saving of from 12 to 15 per cent. in the crude bulk of coal employed, there must be an equivalent gain acquired, according to the commodity thus produced. Coal, as an article of commerce, forms a very considerable item in the trade and export of the present time. Coke is as much an essential in the manufacture of the country as coal is identified with its trade and commerce; therefore, why should not coke, with such results before us as were recorded in the *Journal* of last week, take its own position ultimately as a more important export? Our attention has been especially directed to the improved form of coke ovens which Mr. Devy, of the Old Jewry, has recently patented, by means of which this saving has been proved to have been accomplished. In Mr. Devy's form of coke oven the volatile combustible matter of the coal is economised, and is not altogether lost; on the contrary, it is employed as the means of converting coal into coke, and that by the excessive heat which it evolves in burning. The longer and higher the heat to which carbon from coal is exposed the more it contracts, and consequently, the more dense the coke becomes. This high degree of heat is attained under Mr. Devy's invention by means of an arrangement of flues, which pass beneath the bed or hearth of the coke oven, and round its sides, the whole being formed of fire-brick, including the inner chamber. The chamber is hereby converted into an extensive retort, in which the carbonising process is con-

ducted. The next consideration in respect of the manufacture of coke is time. The coke hereby made appears to possess equal, if not greater, density and brightness as the best samples of coke of ordinary production, whether taking into consideration its fine, bright, and silvery hue, or its granulous and compact texture. At any rate, if uniformly the extreme results may not exactly be obtained by Mr. Devy's process, and allowing even a margin for the difference which always exists between bare theory and practical result, when the public attention becomes directed to those improvements which now are being made in the form, disposition, and construction of the modern coke oven, a very considerable saving will, by its application, be effected in the raw material employed. Economy in time, with an increased production, will be realised, by which a proportionate saving must accrue, which, whether in relation to its operation on the integral railway system, or in the productions of the blast or smelting furnace, foundries, or coke-works, at the year's end, in proportion to the saving attained, a balance will appear on the profit side of the account, such as heretofore has not arisen in the uses and adaptation of coke, whether as an article of commerce, the means of manufacture, or in its application to refining, malting, or any other domestic purposes.

## ANOTHER NEW METAL.—SUBSTITUTE FOR SILVER.—The French *Sicde*, under the head of "Transmutation," publishes a highly interesting article upon the new discovery, of TURNING PAVING-STONES INTO SILVER! Do not start back in incredulous astonishment; it is perfectly exact, perfectly authentic, perfectly practicable, as it would seem. PAVING-STONES! that unworthy, ignoble, insurrectionary pave, that first and worst element of barricades, is to be converted into PLATE; and, driven from the streets by Macadam, is to figure on the table! It will be argued that there was no need of any further production of plate, since the electrotype gold and silver, invented and improved by Knolz, Elkington, Christofle, and so many others; and that the precious metals have, by these processes, been rendered quite common, and quite attainable enough. But that is not all the utility of silver and gold (of the former especially), and upon the feasibility of facilitating the circulation of silver moneys runs the chief part of M. Plée's long article in the *Sicde*. He starts from the necessity of producing an equilibrium between the two metals, gold and silver, and says that such an equilibrium, wanting totally at the present moment, since the influx of gold from California and Australia, is of the utmost importance for trade; and M. Plée remarks, justly enough, that the advanced state of science will assuredly not leave us in the impossibility of supplying the void left by the insufficient yield of silver; and that we shall end either by extracting silver elsewhere than from the silver mines, or by discovering new metals to take its place. "There are, for instance (observes M. Plée) new metals, noble and beautiful as the old ones, hitherto held to be not reducible, which are now perfectly reduced, and which, for the fabrication of every object till now fabricated in silver, would be a complete equivalent for it, and thus allow it to be exclusively consecrated to the monetary circulation." ALUMINIUM has, as we already know, been the object of considerable attention to men of science, and, no doubt, its uses will be great, and stand us in good stead; but there is just now another discovery that is more curious still, and the success whereof would appear likely to be established. The use of stone is growing less ever since asphalt, Macadam, and iron, have superseded it, and the hard, solid paving stone is being more neglected every day. "Now (says M. Plée) if one were to declare at once, and without any preamble, that paving-stones were producers of a metal scarcely in any way distinguishable from silver—that saucepans, plates, forks, and spoons, were to be got out of a block of freestone, one would probably be unmercifully laughed at, yet such is the case; the pave does contain metal, as beetroots contain alcohol and sugar; nothing can be more true." M. Plée follows up his assertion by the ensuing details:—"Take a thick lump of freestone or quartzose silex, reduce it to powder, mix this silex, when pulverised, with a sufficient quantity of alkali, fuse it, and you will obtain a soluble glass that you can dissolve so as to precipitate the silicium it contains in the shape of a jelly. You then take this last product and have it filtered, then re-dissolved a second time in a cyanurated lixivium, so as to produce a compound cyanuret. This operation will give you a fluid, whence there then only remains to extract the metal called silicium. Plunge into this liquid your utensils, whether of copper, zinc, tin, or lead, bring the electric process to bear upon them properly, and they will instantly be covered with the adherent plating of silicium, which is as white as silver, and attains to the highest degree of lustre under the polisher's hand." M. Charles Junot is the inventor of this new metal, and he has, according to the account given by M. Plée, spent years in indefatigable research; nor does the silicium appear to be the only substitute for silver he has discovered. Two or three others are equally mentioned by M. Plée. The silicium, however, seems to be so difficult to distinguish from silver, that a learned French chemist has already presented to the Academy of Sciences a report on the necessity of devising fresh methods of analysis, in order to distinguish between the two metals which is which. "Other chemists (adds the writer in the *Sicde*) have other processes for the reduction of silicium, and all are setting to work at it. It is, therefore, to be expected that a complete transmutation will be effected. We shall from clay draw aluminium; from freestone, from silex, and from sand, we shall extract silicium; those metals, given up to industry and fabrication, may replace silver for domestic purposes, and silver be thus entirely restored to monetary circulation."

**HOT AND COLD-BLAST.**—The controversy between Mr. Truran and an anonymous correspondent, in the *Star of Gwent*, continues:—Mr. Truran commences by stating, "I adhere to the doctrine of repeated reactions occurring in the blast-furnace, and adduce arguments in support of the proposition, adding that a person who writes in the strain of the communication referred to had better change his signature from 'Iron' to 'Brass,' as being more appropriate. The theory of repeated reaction (Mr. Truran continues) may appear very plausible, but a brief examination of unquestionable data will show the little truth that it contains. In most metallurgical processes, the changes which heat and chemical affinity produce in matters under treatment can be observed; not so with the blast-furnace. The processes in relation to the blast-furnace are hidden, and are evolved at such depths, that the ironmaster is still unknown as to the precise latitude and extent of the operations resolved on the hearth; it is only necessary to state the weight of materials consumed in a given time will approximate very closely to the combination which takes place in the blast-furnace. Pursuing the investigation of the theory of the cold-blast contended for, Mr. Truran states, for instance, a blast-furnace working on grey iron—blast per minute, 2-530 cubic feet, weighing 190-4 lbs., and at 23 per cent., containing 43-7 lbs. of oxygen; consumption of coke, 25-7 cwts. per 12 hours, or 40 lbs. per minute, at 93 per cent. of carbon, the coke will contain, and convey into the furnace, 37-2 lbs. of carbon per minute; consumption of calcined ore, 320 cwts. per 12 hours, equal to 50-7 lbs. per minute; a peroxide of iron, yielding 40 per cent. of metal, will give of metallic iron 20-25 lbs. per minute, and of oxygen, in combination with this iron, 8-92 lbs. per minute. The flux being lime, we may neglect its consideration, and confine our attention to the chemical actions that can take place between the oxygen of the blast, the carbon of the fuel, and the oxygen of the ore. The oxygen of the blast combines at first with 16-38 lbs. of carbon, forming carbonic acid. This, according to 'Iron's' theory, is converted into oxide of carbon, with an equivalent of carbon. To do this, it must take up another 16-38 lbs. of carbon—consequently, of the 37-2 lbs. of carbon entering the furnace per minute, 32-76 lbs. are absorbed to form the oxide of carbon, leaving a balance of only 4-44 lbs. Now, according to 'Iron,' this oxide of carbon reacts on the oxygen of the ore, and is converted back into carbonic acid; it is here we see how little 'Iron' cares for the facts when they stand in the way of his theory. To convert the oxide of carbon into carbonic acid, it must be charged with an additional quantity of oxygen—to the 4-44 lbs. Where does 'Iron' get his oxygen from? The quantity combined with the metal in the ore is only 8-92 lbs.—a quantity sufficient for the conversion of only one-fifth of the oxide of carbon into carbonic acid. Granting that this one-fifth of the oxide of carbon is converted into carbonic acid by uniting with the oxygen of the ore, and that this quantity reacts upon the carbon of the fuel, we readily see that a consumption of 32-76 out of 37-2 having occurred at the lower level, there remains only 4-44 lbs. of carbon to operate on, including the quantity expended in the carbonisation of the metal. The 8-92 lbs. of oxygen with the ore require 67 lbs. of carbon; therefore, any one readily can see the impossibility that the entire quantity of oxide of carbon can be changed into carbonic acid by the limited quantity of oxygen with the ore, and that of the minor quantity so converted a considerable portion ascends to the throat in the form of carbonic acid. What, therefore (enquires Mr. Truran), becomes of 'Iron's' doctrine of repeated reactions? The consumption of carbon and oxygen in a given time, no matter whether this time be the fraction of a second or several years, incontestably proves that the required quantity of carbon and oxygen not being consumed, the theory of repeated reactions is altogether incorrect. Mr. Truran appears to feel that the preservation of the incognito which 'Iron' maintains evinces some want of candour, which operates disadvantageously.

**LIMITED LIABILITY.**—In connection with this very important subject, a number of legal treatises have recently appeared on the law and practice of the Act. Among these is a work by Charles Wordsworth, Esq., published as a supplement to his valuable work on mining and other joint-stock companies not incorporated by Act of Parliament, more particularly noticed in the *Journal* of the 13th inst. A second edition of Mr. Wordsworth's commentary upon the Act has recently been published, with considerable alterations and additions. So great is the interest taken in commercial circles in respect of this law of Limited Liability, and such is the demand for an edition in the French language, which Mr. Wordsworth has recently accomplished. Bearing the title of the "Projecteurs et Shareholders' Guide to the Application of the Limited Liability Act to Joint-Stock Companies," W. F. Finlason, Esq., has just published a small volume illustrative of the subject. Under each of the clauses of the Act, Mr. Finlason has given a full and complete explanation of the meaning of the clause, together with all forms required to be complied with by the Joint-Stock Companies in relation to the Winding-up Act, and their several amendments, with which this important measure is so closely associated.



## MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

**PENCOSE CONSOLS** have just sold 72 tons blende, 11½ tons copper ore, and 2 tons 17 ozs. lead ore.

**QUEEN OF DEBT MINE** has sold upwards of 100 tons of copper ore, although only at the 10 fathom level. There are 25 tons more ready for sampling, upwards of 100 tons at surface ready for dressing, and good reserves laid out to be raised when the machinery is prepared. The new engine will be on the ground in a few days, so that this young mine will shortly prove itself fully entitled to the distinguished name it now bears.

**WEST ROSEWARNE UNITED MINE.**—This sett, which is situated between the Old Reliance and Rosewarne United, has recently been inspected by several competent mining captains. Captain Charles Thomas, of Dolcoath Mine, thinks that to erect a 60-hp engine, and sink on the south lode (which is a continuation of the Rosewarne rich lode), towards the elvan, is a good speculation. Capt. W. Pascoe, of South Frances, confirms this opinion. Capt. Hugh Stephens, formerly agent of the mine, states that the mine worked with the present standard of copper, the loss would have been but trifling; as it was, with a standard varying from below 80% to 100%, the loss did not exceed 3500l., which included driving an adit (500l.), and laying open a new mine from surface. Capt. James Pope, of Wheal Basset, Thomas Glanville, of North Basset, and Wm. Roberts, of West Basset, report equally favourable.

**SWANPOOL MINE.**—This mine sold, on the 3d October, 650l. worth of silver-lead ore, and sampled on the 25th of the same month, 45 tons more, worth about 18l. per ton, equal to 800l., at a month's cost of 300l. The mine is divided into 1000 shares, upon which, we believe, 12, 10s. has been paid. There is ample machinery, of the very best description, erected, and all the works are well laid out. It is in a very good district, with every prospect of great success. The principal adventurers are Cornish gentlemen.

**SOUTH WHEAL ELLEN.**—This sett is situated in the parishes of Illogan and St. Agnes. The lords are Messrs. Humphry Williams and John Basset, and the dues 1-18th. The sett comprises a part of the old Wheal Basset, which was formerly a richly productive mine. The main lode in the sett was worked by a company in the year 1815, from which period to 1818 nearly 20,000l. of copper ore was sold from the mine, which, however, was at length abandoned, in consequence of a dispute with other parties, combined with the circumstance of a low standard for copper ore at the time. The present company commenced operations in June last, when a 33. cwt. per 250th share, was made; and since then the progress of the works has been very rapid. An engine-house and other buildings have been erected, and a 45-hp engine set to work, which has already forced the water to below the 20 fms. level, the adit at the engine-shaft being about 28 fms. from the surface, and at the boundary shaft east about 50 fms. The present company have obtained a large addition to the former sett; their ground now extends a considerable distance on the course of the lode into Basset's land. A deep and narrow valley divides the land of Mr. Basset (included in the sett) from that of Mr. Humphry Williams; and in this valley the old Wheal Basset adventurers met with a rich deposit of ore at an inconsiderable depth. The gossan on the eastern side of the valley dips east, and on the eastern side west, and not far from the point of meeting there is an intersection of two lodes. The engine lode in the adit level is large, and of a very promising nature. A considerable length of backs has been taken away above the adit by the former workers, both east and west of the engine-shaft; and in the 10 and 20 fms. levels, also, as far as they have been extended, a great many fathoms have been stopped by the former company. The mine has only been sunk to the 30 fms. level, at which point no level has been driven east or west. The water, as before stated, is now in fork to below the 20, and the remaining few fathoms will very soon be drained. The engine lode is a strong chamber lode, underlying north about 2 feet in a fathom; and parallel thereto, and at a short distance from it, on the north, is an elvan course, also underlying north, whilst there are lode veins crossing the east and west lode. The general indications—the large quantity of ore raised by the former adventurers, the inconsiderable depth of the mine, and the fact that parallel to it, on the north, are three other mines (Wheal Ellen, Wheal Music, and United Hills), which have returned good profits—all go to show that the adventurers of South Wheal Ellen have a set of extraordinary promise. Several tributaries have already been seen in the adit level, and some tons of ore raised by the tributaries. The mud is now being cleared from the end of the 10, both east and west, and when that is done, men will be set to drive; and it is believed from the shows of ore seen in the adit above, that they will very soon come into ore in both ends. The expenditure of the adventurers has necessarily been heavy, in the purchase of the engine, pitwork, and other materials, besides surface work in buildings, &c., which expenditure will not again occur. The call made in June was 768l., notwithstanding which, the company found themselves in debt, at the meeting on the 26th of October, to the amount of 1313l., including 991l. for materials, and 415l. for the engine. The whole of these amounts, and all the costs and bills to the end of September, have been discharged by a heavy call of 3s. 7d. per share. The sett was also given to the meeting on the 26th of October, to divide the share into 512ths the next bi-monthly meeting. The report of Captain James Evans, the manager of the mine, will be found in our mining correspondence.

**WHEAL VICTORIA.**—This mine, situated in St. Agnes, was for some time a favourite with many parties, and numerous shares changed hands. The indications were at one time said to be good; but the present condition of the mine is so poor and unpromising, that the shares are almost unsaleable.

**WHEAL COMFORT (GWENNAP).**—The agents have for some time been cross-cutting to intersect one of the Treavarn lodes, which at length has been accomplished; and last week the shares, at Redruth and Truro, experienced a sudden rise. At Truro, on Wednesday evening, Oct. 23, shares were purchased for 32. each, whilst next day they had risen, in consequence of reports from the mine, to 10l., and even 20l. per share. On Saturday, however, the rumours were corrected, and shares declined to 6l. and 8l. The new lode is considered to present promising indications.

**WHEAL ELLEN.**—This sett adjoins South Wheal Ellen, and it is understood is at present in the hands of Mr. Pike, of Camborne, who is engaged in getting up a company. The mine is situated in an ore district, and paid profits to the former adventurers.

**LEAD MINES.**—Of lead mines east of Truro, South Cargoll, adjoining East Wheal Ellen, is now looking exceedingly well, and shares have rapidly advanced within the last fortnight. South Gargas, yielding a considerable quantity of ore, Penair, and one or two other small concerns, have not yet been sufficiently prosecuted to lay open the lodes. It is, however, believed that the ground, within a few miles east of Truro, is traversed by numerous lead lodes.

**WEST ROSEWARNE UNITED MINE.**—We briefly alluded last week to this promising concern, and we have now the pleasure of giving the following extracts from the reports:—Captain Charles Thomas states:—“This sett adjoins Rosewarne Mine, and, as the name implies, lies to the west of it. The lode which is very rich in Rosewarne, passes through this sett for about 300 fms. in length. \* \* \* On taking a view of the whole circumstances, I am induced to think that, to erect a 60-hp engine, and sink on the south lode, which is a continuation of the Rosewarne rich lode, towards the elvan, is a good speculation. Capt. Pascoe, of South Frances, reports:—“The stratum is thick, much of the same character as that of the Rosewarne mine, and the lode is very rich in copper, and is well adapted for the purpose of being worked. Judging from the favourable indications of the lode and the locality of the sett, I do not hesitate to say that it warrants the erection of a 60-hp engine, which will, I think, be ample power to drain the mine on all the lodes, to give them an effectual trial, the result of which, in my opinion, is very likely to be remunerative to the adventurers.” Capt. Hugh Stephens, who was agent of the mine when formerly at work, and which was abandoned from the failure of the largest shareholder, and the low standard of copper at the time (80l. per ton), reports:—“The 10 fms. level, and the back over it, produced a fair quantity of copper ore. About 25 fms. east of the engine-shaft I have seen a 4 ft wide, of superior quality, producing on an average from 18 to 20 per cent. About 2 fms. west of Stephens's shaft there was an extraordinary deposit of ore, which extended diagonally 9 fms. wide, about 5 fms. above and 5 fms. below adit, the average thickness about 6 feet. The ore was of low produce, from 3 to 7 per cent. for copper.” The net amount of capital actually laid out by the company did not exceed 3500l., which included the driving an adit, which cost 500l., and the laying out a new mine from surface. Capt. Stephens thinks, from the ore already raised from the mine, the rich discovery recently made on the lode in the adjoining mine, Rosewarne United, and having the one very productive and profitable mine, Reliance, adjoining on the west, there is sufficient inducement to work West Rosewarne again. Captain Pope, of Wheal Basset, reports:—“This sett adjoins the Rosewarne United Mines to the east, and the Old Reliance to the west, and has the same lode for the whole length, which is nearly 300 fathoms.” He concludes by remarking, “I have no doubt it will make a profitable and lasting mine.” Captain Glanville, of North Basset, reports:—“As to the geological condition of this sett, the stratum is thick, of the same character as that which has proved to be very congenial for copper in the neighbourhood. I observe that the elvan course in Rosewarne United, which intersected the lode about the 12, will be found to intersect the lode near the engine-shaft at West Rosewarne; and as the lode at Rosewarne is found very productive about this elvan; it seems reasonable to expect the same result in West Rosewarne. I do not hesitate to say that it warrants the erection of a 60-hp engine, and sink on the south lode, which is a continuation of Rosewarne rich lode.” Capt. Roberts, of West Basset, reports:—“West Rosewarne is situated in the parish of Gwinnar—a good mining district—is bounded on the west by Old Reliance, and east by Rosewarne United, the rich lode of which passes through the length of the sett; and I am informed correctly, that the western end of the latter mine, is within 100 fms. of the boundary of West Rosewarne sett. The appearance and prospects of Rosewarne United add to the value of this promising piece of mineral ground. I have no doubt, if the mine be worked in a spirited and miner-like manner, that it will ultimately prove successful to the adventurers.” These reports are highly encouraging, and it certainly appears that the prospects of this concern are unusually good. We understand that the courses of ore at Rosewarne dip west, which is a very favourable feature for West Rosewarne, while the erection of the 65-hp engine, recently purchased by the former company, about 200 fms. from their boundary, will, doubtless, have a beneficial effect on the operations at the latter mine. The company are also fortunate in having the local superintendence and management of so able and practical a man as Capt. Wm. Richards, of Wheal Basset, South Wheal Frances, &c. Mr. J. H. Murchison, of 117, Bishopsgate-street Within, is the London secretary.

**The Wildberg Mining Company** have advices to October 26:—At the West Mine, the lode sinking under the 10 fms. level, at the Blumengang sink, is producing 7 tons of silver-lead ore per fm. The lode driving east from the Blumengang sink, in the 10 fms. level, is producing 5 tons of silver-lead ore per fm. No. 3 stop is producing 1½ ton of silver-lead ore per fm. Beck's winze, sinking below the deep adit level, east from the south cross-cut, is producing 5 tons of silver-lead ore per fm. We have not made much progress in sinking this week, in consequence of poor air, but we are making preparations to obtain better from the old Langenfeld's workings, in which I think we shall be successful; if so, it will greatly facilitate the progress in this part of the mine.—At the East Mine, Dean's lode, driving west from Dean's winze, in the 20 fms. level, east of Michael's shaft, is producing 2½ tons of silver-lead ore per fm. Dean's lode, driving east from Dean's winze, in the 20 fms. level, is producing 1 ton of silver-lead ore per fm. The Weitung lode, driving east from Michael's shaft, in the 20 fms. level, is producing 1 ton of silver-lead ore per fm. We have a new slope working in the 20 fms. level, at the new Dorne shaft. The new shafts fair to turn out well; it will now produce from 10 to 15 cwt. of silver-lead ore per fm. The sinking of Carter's engine-shaft under the 40 fms. level is again progressing favourably, but the water in the bottom of the shaft is still quick. The Caroline shaft is cleared from surface 9 fms. 2 ft., and well timbered. The main rods for Carter's lift is ready, and the pumps are all on the mine, and I anticipate in a short time we shall commence placing the lift in the shaft. Our surface operations are going on favourably.—JAMES M. CHAMPELION.

## WEEKLY LIST OF NEW PATENTS.

APPLICATIONS FOR PATENTS, AND PROTECTION ALLOWED.

W. C. Holmes: Gas.—A. Tooth: Curing flesh and hides of animals in an entire state.—D. Hill: Material for resisting fire in furnaces, &c.—L. D. B. Gordon: Electric telegraphs.—C. T. and E. B. Bright: Electric telegraphs.—V. K. Barry: Obtaining products from bituminous shale, bog-head mineral, &c.—W. R. Lomas: Steam engines.—J. Page, and W. Robertson: Moulding or shaping metals.—G. S. Parkinson: Railway breaks.—T. W. A., and G. Fairbairn: Casting ordnance.—F. Pula: Electro coating metals.—J. Livingston: Permanent way.—R. Benton: Motive power by leverage.—G. Thompson: Steam engines.—J. H. Clement: Railway break.—J. Forrest: Extracting metals from their ores.

## WEEKLY LIST OF PATENTS SEALED.

D. Warren, Exmouth.—Obtaining and employing motive power.  
M. Allen, Workshop-street.—Improved valves, particularly applicable for regulating the supply of air to furnaces and fire places.  
C. F. Varley, 1, Charles-street, Somerset-town.—Electric telegraphs.  
L. Paige, Vermont, U. S.—Brake mechanism for railway carriages. [trains.]  
W. Eassie, Gloucester.—Machinery or apparatus for stopping or retarding railway [trains.]  
J. Hamilton, Jan., James-street, Liverpool.—Construction of iron girders.  
H. M. de Balesirino, Genoa.—Obtaining motive-power by the aid of explosive gas.  
J. Bowron, Tyne and Tees Glass Works, South Shields.—Manufacture of glass tiles.  
J. Herdman, Belfast.—Manufacture of wrought-iron plates adapted for ship-build- ing, and other purposes for which strength and lightness are required.  
R. McConnell, Glasgow.—Beams or girders for building or structural purposes.  
G. W. Muir, Glasgow, and M. Gray, Bonhill, Dumbarton.—Admitting and regulating the admission of air to furnaces.  
T. Swinburne, South-square, Gray's-inn.—Machinery for applying and obtaining motive-power, applicable, but not exclusively so, in the propulsion of vessels and railway trains.  
E. Myers, Rotherham.—Buffers and other springs for railway and other carriages.  
L. A. Rittenband, Warwick-street, Regent-street, M.D., and J. Bower, Harnett, near Leeds.—Manufacture of manure.  
W. Wessles, Elswick-villas, and G. A. Crow, Forth-street, Newcastle-on-Tyne.—R. Bodmer, Thavies-inn, Holborn.—Rotatory steam-engines.  
H. H. Watson, Bolton-le-Moors.—Manufacture of coke.  
E. Hall, Dartford.—Manufacture of gunpowder.  
T. Kempson, Birmingham.—Steam-engine and boiler.

**MANUFACTURE OF IRON AND STEEL.**—An invention for the reduction or smelting, by an improved system, of iron ores, for smelting and puddling pig and plate-iron, and for manufacturing bar, plate, rod, sheet, and other descriptions of iron intended to be afterwards converted into steel, has been patented by Mr. Robert McCall, of Pallas-Kerry, Limerick. For the purposes of this invention, the patentee employs a close furnace, instead of the open furnaces hitherto employed in such manu- factures, and in which the ores are reduced, the heat required for the reduction of the ores therein, and the smoke and gases from the furnace are employed for drying purposes (such as the drying of the fuel), by conducting off the same through a pipe inserted into the side of the furnace near the top thereof. In connection with the closed furnace the patentee employs air chambers, in combination with either hot or cold blast, for the purpose of creating the necessary draught in the furnace, instead of employing a mechanical blast only when such furnaces are used for “roasting” or “torrefying” the ores of iron; and when the furnace is not required to be used for this purpose, but only for the smelting of the ores of iron, the air cham- bers, without taking off the cylinder cover and junk ring of the piston, at the same time insuring equal pressure upon each spring, or other power used to force out the piston rings, during the process of tightening. The inventor employs a plug, fitted into a round hole in the centre of the piston, and grooved with the same number of grooves as there are springs in the piston; these grooves are cut down one end and run out to nothing at the other, and in them rest the bolts which are connected with the springs. Through the plug a screw is inserted, having a conical collar, which is fitted and ground into the inside of the junk ring of the piston, a square lead to the screw going through and extending about 1½ inch outside the junk ring. The centre of the cylinder cover is a hole for inserting a box spanner, which fits the head of the screw, which extends out of the junk ring. When the piston requires tight- ening up, the plug in the centre of the piston is caused by the spanner to retire up- wards, and the bolts attached to the springs are forced outward from the centre of the piston by the inclined grooves in the plug.

**METALLIC PISTONS.**—Mr. William Brunton, of Camborne, has recently patented an improved arrangement for tightening up the piston rings of metallic pistons, without taking off the cylinder cover and junk ring of the piston, at the same time insuring equal pressure upon each spring, or other power used to force out the piston rings, during the process of tightening. The inventor employs a plug, fitted into a round hole in the centre of the piston, and grooved with the same number of grooves as there are springs in the piston; these grooves are cut down one end and run out to nothing at the other, and in them rest the bolts which are connected with the springs. Through the plug a screw is inserted, having a conical collar, which is fitted and ground into the inside of the junk ring of the piston, a square lead to the screw going through and extending about 1½ inch outside the junk ring. The centre of the cylinder cover is a hole for inserting a box spanner, which fits the head of the screw, which extends out of the junk ring. When the piston requires tight- ening up, the plug in the centre of the piston is caused by the spanner to retire up- wards, and the bolts attached to the springs are forced outward from the centre of the piston by the inclined grooves in the plug.

**IMPROVEMENTS IN MARINE STEAM-ENGINES.**—Mr. Jas. Biden, of Gosport, has patented certain improvements, which consist in the conveyance of water by means of metallic pipes, so as to form a passage from the cylinders outside the ship, but below the water line, round the stem or stern, into an open reservoir placed in the hold. This reservoir is formed in two compartments, one above the other. The upper compartments are filled with fresh water, communicating with the lower by float-valves, which supply the lower division, and communicate with the atmo- sphere, whereby any uncondensed steam is blown off. As the steam from the cylin- ders passes through the pipes, it becomes cooled, and the condensed steam is pro- duced by condensation then flows into the lower compartment of the reservoir, from which it is pumped into the boilers. By these arrangements the boilers can be supplied with hot instead of cold water, which will be fresh instead of salt. Little deposit will, however, arise if salt water be used, since the water, by working in a circle, will be returned into the boiler as distilled water.

**INDURATED ARTIFICIAL COMPRESSED STONE.**—We have, on several previous occasions, called attention to the proceedings of the Indurated Stone Company, and to the value of their patent for indurating soft stone. In addition to its existing patents, the company has now another most useful one, for the manufacture of artificial compressed stone, which was granted under the Great Seal, and dated Sept. 28. The manufacture of this new material is very simple: it is made of either sand, chalk, cement, loam, or any like loose substance, mingled with certain bituminous and resinous materials, which are pressed into moulds when in a warm and plastic state, the water produced by the steam being used to form the material, and the fresh water produced by condensation then flows into the lower compartment of the reservoir, from which it is pumped into the boilers. By these arrangements the boilers can be supplied with hot instead of cold water, which will be fresh instead of salt. Little deposit will, however, arise if salt water be used, since the water, by working in a circle, will be returned into the boiler as distilled water.

**NEW FUEL.**—At New Orleans, experimental trials have recently been made with a new description of fuel, called “Firmamentum,” by which common clay, or a composition resembling it, is made to serve all the purposes of coal. The “Firmamentum” is made up into balls, about the size of a 4-pound cannon shot, and dried like bricks. When thrown into the common grate it was found to answer admirably, but was thought incapable of generating steam. To test its capabilities in this respect, some portions were thrown, like coal, into a steam-furnace, at the office of the *New Orleans Delta*, in the presence of a large assembly of competent judges. It lighted without the slightest difficulty, and in a short time steam was raised. The heat in the furnace became intense, and with a slight addition to the quantity first thrown in (half a barrel) steam was kept up for several hours, and worked the printing machines of the *Delta* at the utmost speed. Whether it will ever come into general use is a question which must depend upon its adaptability for domestic purposes.

**IRON CONTRACTS.**—Mr. Thomas Edington's weekly statement of the principal orders for castings, machinery, rails, &c., ascertained by him to be in the iron markets of London, Dublin, and Glasgow, show—1. That some of the orders published last month have been postponed, and a few countermanded.—2. New Orders: Five miles of cast-iron water-pipes, from 2 to 6 in.; a high-pressure steam-engine, boilers, and pumps, for Heanor, Derbyshire; tubular boiler for London; 400 tons sleepers and rails for England; 5000 tons railway chairs for Calcutta; 200 to 300 tons gas-pipes for Dublin; a pair of double-acting condensing engines for Wolverhampton; 1000 tons railway chairs for Canada.

**THE IRON TRADE.**—“Ironmaster,” in this day's *Worcester Journal*, says—“The pig-iron trade is not so good as it was, as I told you last week. The large consumers are working up their stocks, and will not buy, whilst we are producing more pig-iron than the market can take. I have not heard of any orders. Prices are full high, and with bars at more than 8l. we cannot compete with Belgium.”

A meeting of the Patent Nitro-Phosphate or Blood Manure Company is called for the 14th inst., to confirm resolutions for bringing the company within the provisions of the new Limited Liability Act, by consolidating every four shares of 2l. 10s. into one share of 10l.

Ten 50l. shares in the Norfolk Estuary Company were sold, at the Auction Mart, yesterday, at 5l. 7s. 6d. each.

**HULL, Nov. 1.**—Although the public continue to invest small sums in railway shares and Consols, there is too much caution shown in the present tight state of the money market to induce large purchases, especially as foreign politics appear likely to be still more complicated by what we must call the American question. These things produce uneasiness, and although people may think they will end in nothing, they suffice to check purchases when everything else looks dull.—T. W. FLINT AND CO.

## RAILWAY TRAFFIC RETURNS.

ENGLAND.—Subjoined are the traffic returns of the various English lines for the last week:—

	1855.	1854.
London and North-Western	£57,936	£52,876
Lancashire and Yorkshire	19,915	19,108
London and South-Western	14,705	13,462
London and Brighton	14,469	15,244
Great Western	25,305	28,070
North-Eastern	32,472	30,888
South-Eastern	20,729	17,088
Great Northern	25,420	22,550
Chester and Holyhead	5,779	5,015
Manchester, Sheffield, and Lincolnshire	9,610	9,042
Eastern Counties, Norfolk, and Eastern Union	24,613	23,903
Bristol and Exeter	6,538	6,260
East Lancashire	5,017	5,541
London and Blackwall	1,278	1,402
Lancaster and Carlisle	6,306	5,972
Midland	28,307	27,232
Oxford and Wolverhampton	4,010	3,281
Newcastle and Carlisle	3,347	3,068
Shrewsbury and Chester	2,574	2,063
South Wales	5,770	4,965
South Devon	2,317	2,387
North Yorkshire and River Don	2,245	1,597
Taff Vale	3,553	3,553
West Hartlepool Railway and Harbour	2,702	2,313
Total	£326,399	£299,962

SCOTLAND.—The returns on Scotch lines are:—

	1855.	1854.
Caledonian	£11,395	£12,095
Edinburgh and Glasgow	5,040	4,745
Edinburgh, Perth, and Dundee	3,010	2,783
Glasgow and South Western	6,179	5,779
North British	5,282	4,983
Total	£30,806	£30,186

IRELAND.—The Irish returns are:—

	1855.	1854.
Belfast and Ballymena	£ 869	£ 770
Dublin and Belfast Junction	1,189	1,035
Dublin and Kingstown	863	852
Dublin and Drogheda	1,695	1,422
Great Southern and Western	7,209	5,854
Midland Great Western	3,415	2,709
Ulster	1,506	1,184
Total	£16,746	£13,226

**RAILWAY TRAFFIC.**—The traffic returns of railways in the United Kingdom for the week ending Oct. 27 amounted to 405,947l., and for the corresponding week of 1854 to 373,304l., showing an increase of 32,643l. The gross receipts of the eight railways having their termini in the metropolitan area, for the week ending as above, to 185,141l., and for the corresponding week of last year to 169,000l., showing an increase of 16,081l.

The increase on the Eastern Counties Railway amounted to 708l.; on the Great Northern, to 3370l.; on the Great Western, to 2835l.; on the London and North-Western, to 5060l.; on the London and South-Western, to 1334l.; and on the South-Eastern, to 3640l.; together, 16,947l.; but from this must be deducted 124l., the decrease on the London and Blackwall, and 775l. on the London, Brighton, and South-Coast, leaving the increase, as above, 16,948l.

The receipts on the other lines in the United Kingdom amounted to 220,803l., and for the corresponding period of 1854, to 204,208l., showing an increase of 16,595l. In the receipts of these lines, which, added to those of the metropolitan lines, makes the total increase 32,643l., as compared with the corresponding week of 1854.

**RATE OF INTEREST PAID BY RAILWAY STOCK.**—The following statement shows the rates of interest per cent. per annum yielded by ordinary railway stocks at present prices. The calculation is based on the dividends paid for the half-year ending June 30, 1855, and for the year ending with the same.

Railways.	Last half-year.	Last year.
Bristol and Exeter	5 0 0	4 0 0
Caledonian	5 1 9	4 1 9
Dublin and Belfast	5 12 6	5 12 6
Eastern Counties	4 17 10	6 4 4
East Lancashire	5 2 11½	5 10 3½
Edinburgh and Glasgow	4 1 7½	5 2 0½
Glasgow and South-Western	5 1 4	4 18 0
Great Northern	2 11 8½	4 11 11½
Great Southern and Western (Ireland)	5 0 0	4 10 0
Great Western	3 18 5	4 15 0½
Great Western of Canada	6 12 7½	6 10 7½
Kendal and Windermere	2 10 0	4 7 6
Lancaster and Carlisle	5 2 11½	5 8 5½
Lancaster and Preston	5 4 5	5 11 3
Lancashire and Yorkshire Stock	5 6 8	5 6 8
London, Brighton, and South Coast	4 4 10	5 7 0½
London and North-Western Stock	5 3 3	5 5 11½
London and South-Western	5 6 8½	5 14 3½
Midland Great Western	5 3 18	5 13 3
Midland Stock	5 9 4½	5 18 3½
Midland, Birmingham, and Derby	5 11 10	5 18 5
North-Eastern Berwick Stock	5 2 11½	5 10 3½
North-Eastern York Stock	4 8 10½	5 5 6½
Scottish Central	4 14 4	4 14 4
Scottish Midland	4 9 8½	4 3 4
South-Eastern	4 18 7	5 7 3

**SOMERSET CENTRAL RAILWAY.**—At a meeting, on Tuesday, it appeared from Mr. Gregory's report, that the cost of the line from Wells to Frome (about 15 miles), from the difficult nature of the country through which it would pass, could not be less than 225,000l., or 15,000l. per mile, with a characteristic gradient of about 1 in 60. The estimate in the published prospectus of this line is 130,000l., or rather less than 9000l. per mile. With respect to the line from Glastonbury to Week Clamford (about 12½ miles), it appeared that the worst gradient would be about 1 in 100, and the cost of construction about 100,000l., or 8000l. per mile.

**LOWESTOFT AND BECCLES RAILWAY.**—Sir Morton Peto has offered to make this proposed line for 10,000l. per mile (including all preliminary expenses, directors' charges, the purchase and conveyance of land, &c.); to pay the shareholders 3½ per cent. upon the sums they advanced during the progress of the works; and, on their completion, to take the concern at 6 per cent. upon the capital advanced. Sir M. Peto was ready to sign a contract binding him to do all this for 14 years, on the appointment of a committee to carry out the undertaking.

**GEELONG AND MELBOURNE RAILWAY.**—A new clipper ship, the *Geelong*, of 500 tons, has sailed from the Tyne with a full cargo of rails, carriages, locomotives, &c., to be landed at the company's pier, in Corio Bay.

The receipts of the Pennsylvania Railroad Company for the month of September were 80,853l. sterling, against 60,786l. in September, 1854—showing an increase of 20,067l.

**RAILWAYS IN INDIA AND ENGLAND.**—At the Great Indian Peninsular Company meeting, on Monday, Mr. Nicholson, the superintendent, entered into a statement showing the advantages the railways in India possessed over those in England. He named the average cost of railways in Great Britain as 40,000l. per mile. The parliamentary and preliminary expenses amounted to 10,000l. per mile; the cost of construction of works in England was about 15,000l. per mile, the permanent way and materials cost 4000l. per mile, the stations 2000l. per mile, the rolling stock 3000l. per mile, which, leaving 2000l. for contingencies, made up the 40,000l. a mile for the English railways. He felt convinced that if the Indian railway shares were called by any other name than railway, such for instance as *Lokabandha* (Liberation of the Five per Cent. by the East India Company), they would stand much higher in the market. The law and parliamentary expenses of their line for seven years only amounted to 2280l. The result would be that if they finished their line for 10,000l. per mile, and had as good a traffic on it as the average in England, and allowing 50 per cent. for working expenses, they would pay a dividend of 10½ per cent. on the outlay. That would be 5½ per cent. above their guarantee. The sum of 15,000,000l. had been subscribed for railways in India; and if the traffic were only at the rate of 20l. per mile per week—which was half that of the railways in the United Kingdom—and the expenses 50 per cent. of the receipts, they would pay more than the guarantee of 5 per cent., provided the cost did not exceed 10,000l. per mile.

**MATERIAL RAILWAY.**—For some days past the Select Committee of the Royal Arsenal, at Woolwich, have been engaged in witnessing the erection of a novel machine, introduced by the inventor, M. Balan, a working French engineer, who has obtained a patent from the British Government. The apparatus bears the title of an arbor railway, and propels cars or wagons by their own weight on inclined wire ropes. These ropes are firmly attached at the extremities, and at the ends where the material or goods are to be unloaded they are kept apart by a lever, the length of which varies according to the inclination required. The centre of this lever is attached to an upright post by a bolt. When the lever is horizontal the ropes are horizontal, and when one end of the lever is depressed the ropes will be inclined in a reverse way, and the cars travelling on rollers will go in opposite directions. For earthworks, such as cuttings, embankments, quarries, &c., this apparatus will be found useful, as it requires few hands to work it, the weight of the load depressing the rope so that the car travels without assistance to the lever, where it is unloaded, and the other rope being raised, the car slides to its loading place. It may be advantageously used for crossing rivers, where bridges would interfere with the navigation, and in any place where the distance does not exceed 400 yards, to convey either goods or persons. Beyond that distance the ropes must be supported by uprights, placed according to the undulation of the ground. To enable the cars to pass the supports a framework is fixed in front of each, on which framework is laid a movable frame with ropes attached, so as to pass over pulleys set in the stationary frame, the other end of the ropes having counterbalancing weights. The movable frame is laid near the ground, and is maintained in that position by a trigger, so that when the car arrives it touches the trigger, the movable frame is released, and drawn up by the counterbalancing weights, thereby giving the rope a greater inclination, and allowing the car to pass over the upright and giving it a sufficient impetus to reach the next frame, where the same operation takes place. It is likewise adapted for the purpose of an electric telegraph, copper wires being placed inside the ropes, in the same way as in the submarine telegraph.

**IMPROVEMENTS IN MOSAIC WORK.**—British mosaics, executed by machinery, have lately been carried to a very high degree of perfection; and by an arrangement daily exhibited in the Royal Pantheon, 60 in. of mosaic ornaments are now executed in the same time as one on the old principle. There is one cabinet shown to the visitors containing more than 100,000 pieces of wood.



# LONDON AND NORTH-WESTERN RAILWAY.—

## CONTRACTS FOR STORES FOR THE YEAR 1856.—The Directors are prepared to receive TENDERS for the SUPPLY of the undermentioned STORES:—

No. of Contract.	No. of Contract.
1. Brass sheet and tubes for locomotives.	18. Leather.
2. Iron tubes.	19. Lead, white and red.
3. Copper.	20. Lead, ingot, sheet, and pipe.
4. Canvas.	21. Iron, Yorkshire.
5. Carpets and rugs.	22. Ironwork.
6. Crutchees.	23. Oil, burning, &c.
7. Curled hair.	24. Oils, various, and turpentine.
8. Copper and brass work.	25. Oil-cloth.
9. Colours.	26. Augers, hammers, &c.
10. Drysalter.	27. Tin, block.
11. Coach trimmings.	28. Tin, sheet and spelter.
12. Cotton waste.	29. Varnishes.
13. Glass, plate.	30. Sundries, consisting of baskets, felt, candles, soap, brooms, pitch, links, sponge, hose, pipes, for signals, sieves, cement, India-rubber, flannel, calico, &c.
14. Glass, various.	31. Hops.
15. Hardware.	32. Caps.
16. Brushes and pencils.	
17. Nails and tacks.	
18. Screws.	
19. Gas fittings.	
20. Locks.	
21. Lamp cottens.	

Specifications and forms of tender may be had on and after Monday, 5th November, on application, in writing, to the secretary, Euston Station, London.

Forms of tender for each contract are printed separately; and parties applying should state the particular contract or contracts for which they propose to tender.

Patterns may also be inspected on and after Monday, 5th November, from Ten till Four o'clock, at the Company's Pattern Room, Euston Station; and any further information required may be obtained on application to the heads of the several departments. Tenders to be sent in on or before Ten o'clock on Monday, 19th November.

By order of the Directors, CHAS. E. STEWART, Sec.

Euston Station, Oct., 1855.

# GEELONG AND MELBOURNE RAILWAY COMPANY.

Incorporated by an Act of the Victoria Legislature, 8th February, 1853.

Capital £350,000, in 17,500 shares of £20 each.

Bearing a minimum interest of 5 per cent. per annum.

Guaranteed by the Colonial Government for 21 years, and payable half-yearly, viz., on the 20th April and 20th October, in the Colony and in London.

DIRECTORS.—ELECTED BY THE SHAREHOLDERS.

CHARLES NUTTALL THORNE, Esq., J.P., President.

WILLIAM G. McLELLAN, Esq., J.P.

CHARLES IRIBOTSON, Esq., J.P.

JAMES B. HUTTON, Esq.

APPOINTED BY THE COLONIAL GOVERNMENT.

CHARLES EDWARD STRUTT, Esq., J.P., Immigration Agent.

GEORGE F. BELCHER, Esq., Sub-Treasurer.

ENGINEER—Edward Snell, Esq. SECRETARY—Martin Sholl, Esq.

MANAGER—S. J. Cooke, Esq., 36, Cannon-street, late Treasurer to the Colonial Government, and a Director of the Company.

AGENTS.—Messrs. Larnach and Walker, 37, Cannon-street.

EXAMINING AND CONSULTING ENGINEERS.—Daniel Gooch, Esq., C.E., Great Western Railway; Henry Stothert Esq. (Stothert and Slaughter), Bristol.

SOLICITORS.—Messrs. Goodwin and Co., 3, Lancaster-place, Strand.

BANKERS.—London Joint-Stock Bank; and Bank of New South Wales.

The fourth half-yearly report, made by the directors, and adopted by the shareholders in the above company, dated 3d July last, has just been received by the *Marine Polo*. The earthworks and bridges were so far advanced, that tenders had been already taken, and others invited, for the laying of the permanent way in several sections; and it was confidently anticipated that the line would be entirely completed and open in the early part of the ensuing year, and within the originally estimated capital of £350,000.

The shares already allotted in England have provided funds for the purchase and shipment of rolling stock and materials (the greater portion of which is now delivered, or on the sea), with contracts still in progress, will be sufficient to complete the permanent way, and open the traffic throughout between the capital of Victoria and the terminus at Geelong.

When it is remembered that Melbourne in the year 1852 numbered a population of 25,000, and Geelong was a mere village, with its 5000 deriving their trade and support from the scattered sheep and cattle stations far removed in the interior; and that now the former ranks with our third-rate English towns, having a fixed, increasing, and busy population of 120,000; and the latter, keeping a head of its former proportion, being now estimated at nearly 60,000; it is almost impossible to overrate the prospective advantages offered by the connecting link of these two sea-ports within the noble Bay of Port Phillip.

The Colonial Government, fully impressed with the importance of this great basis of communication between the principal towns comprised in this undertaking and the great gold fields of Ballarat and Mount Alexander, had ordered surveys to be made for two trunk lines of railway, intended to be adopted and carried out under Legislative authority, for facilitating the intercourse with these important and populous districts.

The strictest economy has been observed hitherto in the prosecution of the company's plans of operation, no expenses having been incurred beyond those indispensably necessary for the actual formation of the line of railway.

No greater proof can be adduced of the popularity and confidence with which the results of this enterprise are regarded by its present shareholders, than the ready manner in which they have met the calls, in a colony where the current rate of interest is from 8 to 12 per cent., the Government guarantee being scarcely more than equivalent to a minimum rate of interest in this country—viz., 5 per cent.

Upon 10,000 shares allotted in the colony, seven calls had been made, amounting to £14 per share; and the capital, therefore, will most probably be fully paid up about June next. Nearly £10,000 had been paid up in anticipation of calls, and many shares have been transferred from the colony to the London register.

The maximum dividend allowed under the Act of Incorporation is 25 per cent.; and from the valuable grants of land and other privileges conceded by the Local Government, the level nature of the country through which the line passes, the absence of great parliamentary and legal expenses, costly bridges, earthworks, tunnels, or viaducts, it is not unreasonable to expect, on the thorough completion of this pioneer railway, that this large dividend will be fairly reached, and a reserve fund still secured for progressive improvements in the permanent development of its future resources.

The greater portion of the shares reserved for allotment in England are already subscribed and paid up in full—i.e., £20 per share. The residue—viz., 3000—are finally offered to the public previously to their re-transmission to the colony for distribution there. It is necessary that they should be paid up in full, and the interest of 5 per cent. will take effect from the date of payment, and the share certificates, bearing the seal of the company, will be so endorsed.

Prospectuses, reports, register of contracts, plans, working coloured sections of the line, and specifications may be seen, and all further information obtained, on application at the office of the company.

S. J. COOKE, Manager.

Geelong and Melbourne Railway Office, 36, Cannon-street, City, Nov. 1, 1855.

FORM OF APPLICATION FOR SHARES.

To Messrs. Larnach and Walker, 37, Cannon-street, London.

GENTLEMEN,—I request that you will allot to me \_\_\_\_\_ guaranteed shares of £20 each in the Geelong and Melbourne Railway Company, at \_\_\_\_\_; and I hereby undertake to accept the sealed certificates, and to pay for the same on receipt of the allotment letter.

Name \_\_\_\_\_

Address \_\_\_\_\_

Profession or business \_\_\_\_\_

Usual signature \_\_\_\_\_

Date \_\_\_\_\_

# MINING SCHOOL IN CORNWALL.—A SCHOOL for the instruction of pupils in the following branches has been COMMENCED, and is NOW IN OPERATION at TRURO, viz.:

PRACTICAL MINING, including Dialling, Surveying, and General Mining Operations.

CHEMISTRY in its various branches, more especially as it is applied to Mining and Metallurgy.

MATHEMATICS, as applied to Engineering generally.

Instruction may be obtained in any one of the above-named branches separately. The terms of admission are—The payment of £20 in advance for two years, or £12 for one year. The period of attendance from the 1st October to the end of June, with the exception of a vacation at Christmas.

A public examination will be held at the end of each session, when certificates of proficiency will be conferred, and an exhibition of £50 will be awarded to the best qualified pupil, to enable him to proceed to the Government School of Mines in Jermin-street, London.—Further particulars may be obtained on application to

W. H. BOND, Hon. Sec.

# MERCANTILE, MINING, & AGRICULTURAL LABORATORY,

CONDUCTED BY

W. CROWDER, F.C.S., CONSULTING AND ANALYTICAL CHEMIST.

104, SIDE, NEWCASTLE-ON-TYNE.

Late Lecturer on Chemistry in the Newcastle College of Medicine, and formerly Assistant in the Laboratory of the Highland and Agricultural Society.

Mr. W. Crowder begs to inform such persons as are connected with Mercantile, Mining, or Agricultural pursuits, that he will be happy to perform ANALYSES and ASSAYS of every description, and to be CONSULTED upon subjects pertaining to SCIENTIFIC CHEMISTRY. A limited number of PRIVATE PUPILS are admitted to the laboratory on the following terms:—

Fee for 12 months' course of instruction, in one payment in advance... £20 0 0

Fee for 3 months, payment in advance... 6 0 0

# IMPORTANT TO LEAD SMELTERS.—THE INVENTOR is PREPARED TO CONSTRUCT, upon liberal terms, a DOUBLE REVERBERATORY FURNACE, capable of making a SAVING of 50 per cent. FUEL over that of the best constructed furnaces in Europe; at the same time guarantees the general loss of metal not to exceed 5 per cent.

The inventor, after 20 years' experience, both in England and various parts of the Continent, has discovered the method, in the regular course of smelting, and without any extra cost, of separating antimony from a certain class of silvery-lead ore, thereby rendering the lead free of all impurities, and, at the same time, the antimony in a marketable state.—All applications to be addressed to the inventor, Mr. ALFRED JENKIN, Eyan, near Bakewell, Derbyshire. One of the furnaces will be worked by the end of the present month. A descriptive notice of the invention appeared in the *Mining Journal* of July 14.

# TO ARCHITECTS, SLATE MERCHANTS, BUILDERS, AND OTHERS.—THE DIRECTORS of the MACHNO SLATE AND SLAB COMPANY having completed their arrangements for the REMOVAL of their SHIPPING PORT to CONWAY, for the convenience of vessels unable to lower their masts to pass the tubular bridge, are now PREPARED TO RECEIVE ORDERS for their justly celebrated SLABS and SLATES, from the Ffestiniog vein, which for beauty of colour and durability are unequalled.

The slabs have been largely used in the construction of houses for Australia, and from the facility with which they are erected and removed, are well adapted for moveable huts for men and horses at the proposed camps in England and Ireland.

All applications to be addressed to Mr. T. H. WHEELER, the resident director, at the company's offices, Conway, North Wales.

# TO LEAD SMELTERS.—A GENTLEMAN conversant with smelting silver-lead and silver ores, is desirous of obtaining the MANAGEMENT of a LEAD and SILVER SMELTING WORKS.—Address, "A. B.," care of Mr. Thos. Catherall, Eastgate-street-row, Chester.

TO MINING COMPANIES.—A GENTLEMAN, who at present resides on the Banks of the Tamar, having had 14 or 15 years' experience in mining matters generally, and filled the office of PURSER, SECRETARY, and MANAGER, is desirous of an ENGAGEMENT in either capacity in some mine situated in the Calstock, Callington, or Tavistock districts. The most respectable reference given.—Address, "A. B.," Saltash, Cornwall.—Oct. 30, 1855.

TO ENGINEERS.—A MECHANICAL and ENGINEERING DRAUGHTSMAN, who is well acquainted with the theory of mechanics, and the construction of steam-engines and machinery, is desirous of a RE-ENGAGEMENT in an ENGINEER'S OFFICE.—Address, "T. A.," Messrs. Lister and Biggs, 3, Laurence Pountney-hill, London.

TO GENTLEMEN WITH CAPITAL.—THE ADVERTISER, having extensive and valuable coal and iron mines in his possession, is desirous of MEETING with a GENTLEMAN to ASSIST HIM with CAPITAL, to more effectually open his mines. The property is bona fide, and will bear the strictest investigation; and will make a large and immediate return. No objection to a partner.—Address, "A. B. C.," care of Mr. Richard Yearley, Mitcheldean, Gloucestershire.

WANTED.—A thoroughly experienced PRACTICAL ENGINEER, to TAKE CHARGE of an ENGINE and FITTING SHOP, FOUNDRY, PATTERN MAKERS and CARPENTERS' SHOPS, connected with a large ironworks in Glamorganshire, each of which departments has its appropriate foreman. Salary, £150 a year.—Apply, by letter, to "C. A.," Mr. J. Williams, assayer, Swansea.

WANTED.—A SITUATION as a MINERAL AGENT or SURVEYOR. The advertiser would like to take the mapping and surveying of some collieries, and would have no objection to go abroad. He has been a mineral agent and surveyor to large collieries in Wales for upwards of seven years. A good character can be produced. Age 25.—Letters addressed "G. D.," care of Mr. Robert Radnor, Maesteg, near Bridgend, Glamorganshire, will be carefully attended to.

MINERAL AGENT WANTED to take the MANAGEMENT of the MINERAL DEPARTMENT of an IRONWORKS.—Address by letter, giving name of references, where employed, what age, periods of last and previous engagements, and cause of leaving, to Mr. JAMES STRICK, Swansea.

IRON and MACHINERY.—THE SUBSCRIBER, who has a first-class connection, is open for COMMISSIONS in the IRON TRADE. He also undertakes the PURCHASE and INSPECTION of STEAM-VESSLS, RAILWAY PLANT, CASTINGS, and every kind of machinery; and furnishes PLANS and SPECIFICATIONS of any work that may be required.

JOHN WILKIE, Consulting Engineer and Agent.

33, Renfield-street, Glasgow.

# WEST ROSEWARNE UNITED MINE.

In 3500 shares, at £2 per share.—On the "COST-BOOK SYSTEM." Copies of the Reports of Capt. Charles Thomas (of Dolcoath Mine), and the Chief Agents of South Wales, Messrs. North Bassett, North Bassett, &c., with other particulars, can be obtained on application to Mr. J. H. MURCHISON, No. 117, Bishopsgate-street Within, London.

DUSTON IRON ORE COMPANY.—Notice is hereby given, that a GENERAL MEETING of the DUSTON IRON ORE COMPANY will be held at the offices of the company, Wellington Chambers, Cannon-street, London, on Thursday, the 8th day of November next, at Twelve o'clock at noon precisely, for the purpose of receiving the annual balance-sheet of the company, and the report of the directors; to remove from the office of trustee Messrs. Thomas Lucas and John Carter Lucas; to elect directors and other officers; to consider the state and affairs of the company generally; and to confirm the allotment made to the original promoter of the company of 8000 shares, upon which the deposit of 5s. per share only shall be considered to have been paid, in lieu of the shares (being one-fourth of the number now allotted) originally agreed to be allotted to him as paid in full. Thomas Woolley and Robert Beever, Esqrs., being the directors who, according to the Deed of Settlement, retire by rotation, offer themselves for re-election.

By order of the Board, THOMAS NURSE, Sec.

Wellington Chambers, Cannon-street, London, Oct. 24, 1855.

# BARTY'S COMPANY OF IRELAND.—THE QUARTERLY MEETING of the shareholders will be held on Wednesday, the 7th day of November inst., at Twelve o'clock precisely, at the offices of the company, 20, Essex-street, Strand.—Nov. 1, 1855.

By order of the Committee of Management.

# WHEAL FRIENDSHIP, ST. HILARY, CORNWALL.—Notice is hereby given, that MERCHANTS and other CREDITORS of this mine are requested to FORWARD the particulars and amounts of their several CLAIMS now due from the adventurers of the above mine, to be sent to the counting-house on the mine on or before Monday, the 5th November, for the purpose of being examined prior to being presented at the meeting convened for that and other purposes on Wednesday, the 7th November, that the payments of the same may be then satisfactorily arranged.—Address, post paid, to Capt. JOSEPH RICHARDS, Wheal Friendship, Marazion, Cornwall.

Dated Oct. 26, 1855.

JOSEPH RICHARDS, Managing Agent.

# WHEAL FRIENDSHIP, ST. HILARY, CORNWALL.—Notice is hereby given, that a MEETING of the adventurers will be held at the Counting-house on the mine, on Wednesday, the 7th November, at One o'clock precisely, for the purpose of legitimate adventurers signing the Cost-book of the mine. Also, for auditing the accounts, and deciding on the method to be adopted for paying off the outstanding liabilities due to merchants, labourers, and other creditors; and for the raising of capital for further prosecution and working of the mine, together with other important business connected therewith.

Dated Oct. 26, 1855.

JOSEPH RICHARDS, Managing Agent.

# ROYAL SANTIAGO MINING COMPANY.—The Directors of this company hereby give notice, that they have this day made a CALL upon the shareholders of ONE POUND per share, to be paid to the company's bankers on or before the 29th day of November, 1855.

By the terms of the agreement constituting the company, all shares of those proprietors who do not pay the said call of £1 per share within 30 days after the 29th November will be absolutely forfeited.

The form to make the payment will be delivered upon application at the office, and the certificates must be lodged at the same time to have the payment endorsed thereon.

38, Broad-street-buildings, Sept. 26, 1855.

# COPIAPO MINING COMPANY.—Notice is hereby given, that the ADJOURNED ANNUAL MEETING of the shareholders of this company will be held at the office of J. G. Parker, New Broad-street, on Thursday, the 7th November, at One o'clock in the afternoon. The chair will be taken at Half-past One o'clock precisely.

By order of the Directors, EDWARD J. COLE, Sec.

London, Oct. 31, 1855.

# IMPERIAL BRAZILIAN MINING ASSOCIATION.—Notice is hereby given, that the HALF YEARLY GENERAL MEETING of the proprietors of this association will be held at the office of the association, Winchester House, Old Broad-street, on Thursday, the 22nd day of November inst., to receive the Report of the Directors.

At this meeting, two auditors will be elected in the place of John Betts and George Allender, Esqrs., resigned. Proprietors desirous of becoming candidates for the office of auditor are requested to notify the same to the secretary seven days before the time of election.

JOEL HITCHENS, Sec.

Winchester House, Old Broad-street, London, Nov. 2, 1855.

# MOUNT CARBON MINING COMPANY.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders will be held at the offices of the company, Cannon House, 28, Queen-street, London, on Wednesday, the 7th day of November next, at One o'clock, to take into consideration the present position of the company's affairs, and to determine thereon.

By order, ALFRED JEFFREE, Sec.

Dated this 17th day of October, 1855.

# AGUA FRIA GOLD MINING COMPANY.—Notice is hereby given, that the FOURTH ANNUAL GENERAL MEETING of the shareholders in the above company will be held at the City of London Tavern, Bishopsgate-street, on Thursday, the 8th of November next, at Two o'clock precisely, to receive the Directors' Report, and to transact general business.

By order, WM. J. VIAN, Sec.

3, Old Broad-street, Oct. 26, 1855.

# ANGLO-CALIFORNIA GOLD MINING COMPANY.—At the FOURTH ANNUAL GENERAL MEETING of this company, held at the Freemasons' Tavern, Great Queen-street, Lincoln's Inn-fields, this 31st day of October, 1855, Mr. GEORGE EDWARD COTTELL, in the chair,

The following resolutions were proposed, seconded, and carried unanimously:—

Proposed by Mr. F. D. Massey Dawson, and seconded by Mr. Edward Johnstone:—That the report and balance-sheet now before the meeting be received and adopted.

Proposed by Mr. Charles L. Barnwell, and seconded by Capt. T. Garratt:—That the following gentlemen be elected directors:—William Sall, John William Williams, Frederick John Wilson, and John Henry Tremmehere.

Proposed by Mr. J. G. Parker, and seconded by Mr. T. Dearden:—That Mr. Rowland Hill and Mr. William Alexander Coombe be elected auditors for the ensuing year.

Proposed by Mr. W. A. Coombe, and seconded by Mr. Wm. Lester:—That a vote of thanks is due, and is hereby given, to the Chairman and directors, for their untiring energy.

By order, GEORGE F. GOODMAN, Sec.

11, Adam-street, Adelphi, Oct. 31, 1855.

# WEST PAR CONSOLS MINE.—At a SPECIAL GENERAL MEETING of the shareholders in this mine, held at the office, 117, Bishopsgate-street Within, London, on Wednesday, the 29th August, 1855,

S. W. DAUKES, Esq., in the chair.

Whereas, by the 7th Rule of the Cost-book, no shareholder shall have power to vote, nor receive any dividend or dividends, unless he shall have registered his name and shares in the books of the company, and whereas the whole of the shares being now issued, it is

Resolved,—That a share register be at once provided, and that notice be sent to every shareholder by the secretary, requiring him to come in forthwith and register his shares.

Resolved,—That the foregoing resolution be advertised in the *Mining Journal*, and in two of the morning papers.

In pursuance of the above resolution, those shareholders who have not yet sent in their SCRIP FOR REGISTRATION are requested to do so. Shareholders who cannot attend at the office, may have forms, authorising the secretary to register their scrip for them, by writing for the same.

117, Bishopsgate-street Within, Nov. 2, 1855.

# TO IRONMASTERS AND OTHERS. IMPORTANT SALE OF FREEHOLD IRONWORKS AND PLANT, AT GREETH GREEN, WEST BROMWICH.

MR. THOMAS DANKS WILL SELL, BY AUCTION, on Monday, the 5th day of November, 1855 (by order of the trustees of Mr. Thos. Payne), at the Dudley's Arms Hotel, in Dudley, at Five o'clock in the afternoon, subject to such conditions as will then be produced, all that VALUABLE FREEHOLD PROPERTY, called the "STAFFORDSHIRE IRONWORKS," situated at Greeth Green, in the parish of West Bromwich, Staffordshire, and which are fully described in the particulars.—Further particulars may be obtained on application to H. CONNOR, Esq., solicitor, Stourbridge; G. JABER, Esq., Messrs. GEM, DOCKEN, and SUTTON, and Wm. COTTELL, Esq., solicitors, Birmingham; or to the auctioneer, Dudley.

# MINING MATERIALS FOR SALE.

MR. W. F. CONGDON WILL SELL, BY AUCTION (either in one or more lots), on Tuesday, the 6th day of November next, at CASTLE DINAS MINE, in the parish of St. Colum Major, the undermentioned MACHINERY and MATERIALS:—namely, a 14 in. cylinder HORIZONTAL CONDENSING ENGINE, 3 ft. stroke, with about 4½ tons boiler, complete; a gold crushing machine, by Berdan, nearly new; an excellent water-wheel, 18 ft. diameter, 3 ft. breast, with cast-iron axle and centre pieces, and an 8-head stamps, complete.

8 ft. 9 in. pumps, with clock seat-pieces. 2 1/2 in. windbores. 19 ft. 8 in. ditto. 130 fms. of flat rods. 2 1/2 ft. 6 in. ditto. A capstan, complete.

New horse-whim; new whip-chain and rope; wrought-iron stack; new crab winch; tin hatch; small hand lift; 4 new wham kiddles; 4 winze kiddles; 3 winze tackles; screw stacks and plates; double and treble blocks; 2 dressing tooth wheels; a 36 in. smith's bellows; a 30 in. ditto; timber dressing house; 2 dressing frames and flooring; a large quantity of plank and other timber; 100 fms. of ladders; about 50 fms. of launders; 30 fms. of new 3½ in. rope; a quantity of other rope; and 2 bottles of quicksilver. Also, a quantity of carpenters, smiths, and miners' tools; old iron; blister and gad steel; nails; cart and wheels; the account-house furniture; and numerous other articles.

The above materials are of excellent quality, and in good condition, a considerable portion being nearly new. As the mine adjoins the turnpike road leading from St. Austell to St. Columb, the whole can be easily removed.—For viewing, apply to Capt. THOMAS BROWN, on the mine; and for any further information, to the auctioneer; or to Mr. BISHOP, solicitor and notary public, Fowey.

The sale to commence at Eleven for Twelve o'clock precisely.

St. Austell, Oct. 18, 1855.

# BICKERSTAFFE COLLIERY, NEAR RAINFOORD STATION, ON THE LANCASHIRE AND YORKSHIRE RAILWAY.

VERY IMPORTANT SALE of valuable COLLIERY PLANT: ATMOSPHERIC PUMPING ENGINE; SIX WINDING AND OTHER ENGINES; of 4, 10, 11, 30-horsepower respectively; ENGINE HOUSES; TEN BOILERS; TRAM RAILS; PUMP TREES, various dimensions; WINDING and PIT GEARING; TWO WEIGHING MACHINES; about 94,000 COMMON BRICKS; CONTENTS of CARPENTERS, SMITHS, and MECHANICS' SHOPS, &c.

MR. WHEATLEY KIRK has the honour to announce that he is instructed by the proprietors of the Bickerstaffe Colliery to SELL, BY AUCTION, on Wednesday and Thursday, 7th and 8th November, 1855, commencing at Eleven o'clock in the forenoon, in consequence of the mines being worked out, ALL the exceeding valuable PLANT of STEAM-ENGINES, BOILERS, RAILS, PUMP TREES, WINDING and PIT GEARS, UTENSILS, IMPLEMENTS, &c.—viz.,

ATMOSPHERIC PUMPING ENGINE, cylinder 52½, stroke 7 ft.; 30-horsepower beam condensing engine, cylinder 6 ft., 12-horsepower condensing beam condensing engine, cylinder 19½, stroke 11 ft.; 10-horsepower condensing beam condensing engine, cylinder 19, stroke 14 ft.; 10-horsepower condensing beam condensing engine, cylinder 19, stroke 14 ft.; 2 small steam engines; 10 wagon and other boilers; verticals and pumping wheels; pit shafts; capstans; gin; flat and round ropes; pump trees, various dimensions; pump rods; L-legs; spear plates; ventilators; tram rails; shunts; trams; bottom wagons; quantity of 4 wt. basket tubs; quantity of rods; steaming apparatus; sleepers; single and double purchase crabs; block and ropes; boring rods, 100 yards and 69 yards long each, with slush pumps, &c.

In the Smith's Shop: Bellows, vices, slake troughs, sets, swages and drifts, tongs, mandrills, bolt moulds, new iron and steel, old brass, copper, lead, wrought and cast scrap, quantity of bucking and other chains.

In the Mechanics' Shop: 10 in. double geared slide lathe (cast bed), small upright drilling machine, steel tools, drills, mandrills, new files and screws, counter and line-shafting and gearing, driving straps.

In the Carpenters' Shop: Wood turning lathe, joiners' benches, circular saw in wood frame, fellows, spoke, cart shafts.

In Store Room: New leather top and bottom saddles, shovels, picks, oil cistern, &c. Full particulars in catalogue, which may be had from the auctioneer, at his offices, Cross-street Chambers, Manchester, and 4, Kirkgate, Leeds; or will be sent by post on receipt of four stamps.

N.B. The nearest approach to Bickerstaffe Colliery by railway is from the Rainford Station of the Lancashire and Yorkshire Railway.

# EXTENSIVE SALE OF STEAM-ENGINES, BOILERS, MACHINERY, STOCK IN TRADE, LARGE SLATED SHED, WEIGH-BRIDGE, THE OFFICE OF THE FURNITURE, &c.

MR. GEO. C. HYNDMAN WILL SELL, BY AUCTION, the ELIZABETH STREET IRONWORKS, BELFAST, without reserve, on Wednesday, 7th November, 1855, and following days, at Eleven o'clock. ALL the valuable and costly MACHINERY and STOCK IN TRADE, consisting of FOUR STEAM-ENGINES and BOILERS; puddled bar mill and squeezer; plate and angle iron mills; tilt hammer; roll turning lathe; shears; drilling and screwing machines; large wooden cranes; a great quantity of cast metal rods; malleable iron plates and bars; cast metal plates; scrap iron and metal; brass; metal pump, with gearing and piping; a large and expensive slated shed, 140 ft. by 80, on 29 cast-iron columns, 15 ft. high, suitable for a railway station or public market; fire and common bricks; plate and other supplies. Turret clock; smith's tools; and various other utensils in trade. Catalogues to be had of the Subscriber, and sent by post to any address on receipt of two stamps; also at the office of this Journal.

The premises may be viewed till the day of sale, by applying to Mr. GEO. C. HYNDMAN, auctioneer, 7, Castle-place, Belfast.—October 16, 1855.

# FORFEITED SHARES FOR SALE.

MESSRS. CODD AND WILLS have been favoured with instructions to SELL, BY PUBLIC AUCTION, at their Sale and Commission Rooms, 64, George-street, Plymouth, on Tuesday, the 6th November, 1855, at Three o'clock, the whole or part of the following lots, of EIGHT HUNDRED AND EIGHTY-SEVEN (406th) SHARES in YEOLAND CONSOLS MINE, forfeited for non-payment of calls. The mine, which has recently much improved, is now paying her costs, and may shortly be expected to yield profits.—Further particulars may be had of the auctioneers, 64, George-street, Plymouth.—Dated Oct. 16, 1855.

# FOR SALE, BY PRIVATE CONTRACT, a 30 in. DOUBLE ACTION STEAM-ENGINE, with 11 tons fly-wheel, and two wrought-iron shafts, complete; 11 tons boiler; stamps axle for 12 heads; horse-whim, &c.

The engine was built by Mars and Co., and is in excellent condition.—For particulars and price, apply to Messrs. Codd and Wills, auctioneers and mining agents, 64, George-street, Plymouth.

# VALUABLE ALUM WORKS, IRONSTONE, AND CEMENT, AT PEAK, NEAR WHITBY, IN THE NORTH RIDING OF THE COUNTY OF YORK.—TO BE SOLD, BY PRIVATE CONTRACT, all those old established and very valuable ALUM WORKS, with an estate consisting of 244 acres of FREEHOLD LAND, containing a rich and inexhaustible BED of ALUM ROCK or SHALE, abounding in the famous MULGRAVE CEMENT STONE, and containing also valuable SEAMS of JET and IRONSTONE of the best quality. The estate also comprises a good substantial dwelling-house, with office and laboratory adjoining, stabling, and farm buildings, and 15 cottages (with gardens attached) for the residence of workmen.

The land consists of arable land in the hands of the proprietors, 80A. 2P. 34I.; plantation, 1A. 3R. 20P.; land occupied by the works, shale heaps, &c., 74A. 0P. 20P.; moor, 84A. 3R. 13P. The whole estate is situated in the two adjoining townships of Fylingdales and Stainton Dale, is toll free, and the portion in Stainton Dale is also toll free. The Fylingdales part of the property is also



**MINING INVESTMENT.—WEST ABERFFRWD.—TO BE SOLD.** A very valuable MINE, situate in the heart of the best mining district in Cardiganshire. A shallow adit level has been extended for many fathoms, in the bottom of which there is a good course of ore now to be seen, and some tons of ore on the surface broken therefrom. A deep adit level has been commenced, and driven on the course of the lode for 20 fms., the lode yielding lead ore. To continue this level to the course of lead ore discovered in the shallow adit level was the object of the present company; but a great portion of the mine being held by working miners in the adjacent neighbourhood, whose means are not sufficient to carry on the trial with spirit, is the only cause for parting with the property. To inspect, and for further particulars, apply to the agent, PHILIP NICHOLLS, Goginan, Aberystwith. P.S. There is every facility for the working of water machinery, carriage, light, and dues moderate.—March 5, 1855.

**VALUABLE LEAD MINE FOR SALE, BY PRIVATE TREATY.**—MONTGOMERYSHIRE.—This mine is now in full working order, the present proprietors having spent large sums in opening out and extending the works, the driving now being through a fine course of ore. The levels are laid with rails, and every facility at hand to prepare produce for sale:—viz., a powerful 30 ft. WHEEL and CRUSHERS, DRESSING-FLOORS, &c. The discoveries of ore in the district have been unprecedentedly large, and the ore in view is very considerable.—Plans and sections, with terms, &c., will be forwarded on application to Mr. BELL WILLIAMS, land agent, 16, Castle-street, Liverpool.

**LEAD MINES IN THE COUNTY OF MONAGHAN, IRELAND.**—Mr. D. G. GATLEY has been instructed to SELL, on very favourable terms, a MINING PROPERTY of great promise, from which returns of lead, copper, and iron, may be obtained immediately.—Reports, &c., can be seen on application at the mining offices, 75, Cornhill.

**SPARE MATERIALS FOR SALE, BY PRIVATE CONTRACT.**—at the DEVON BULLER GREAT CONSOLS MINE, Buckland, near Tavistock, Devon:—WATER-WHEEL, 32 ft. diam., 3 ft. wide, with cast-iron rings, cylindrical axle, sockets, saddles, and brasses, all nearly new, only worked a few weeks; 100 fms. 2 in. round rods, with best hammered iron joints, pulleys, and stands; pumping gear, nearly new, attached to horse-wheel. The whole may be viewed on application to the agent, on the mine; and prices obtained from Mr. Henry Pratt, 20, St. Helen's-place, Bishopsgate-street, London; or Mr. Thomas Nicholls, Bedford Ironworks, Tavistock.

**VALUABLE MINING MATERIALS, WATER-WHEELS, &c.** FOR SALE.—Messrs. CHAS. and HENRY WEBBER, IRONFOUNDERS, MILLWRIGHTS, &c., of NEWTON ABBOTT, DEVONSHIRE, beg to announce that they have the following MINING MATERIALS FOR SALE:—viz., a WATER-WHEEL, 40 ft. diameter, 6 ft. breast, with wrought-iron buckets (3-16ths thick), iron rings 12½ deep, 56 arms of best quality timber, iron axle, cranks 6 ft. stroke for pumping, and gear work for driving stamps, &c. Also, a WHEEL of same description as above, 30 ft. diameter, and four feet breast; and another 20 ft. diameter, and quite new. SIX WROUGHT-IRON TRAM WAGONS, nearly new, made to carry 2 tons each. 25 fms. of 12 in. PUMPS; and a first-rate CRUSHING MACHINE, with 20 in. rolls, nearly new. The 40 ft. wheel is near the Newton Abbott Railway Station, and can be sent by rail or water to any part of the country. Further particulars, and estimates for all kinds of machinery, forwarded on application to Messrs. CHAS. and HENRY WEBBER, as above.

**ELIGIBLE IRONWORKS TO BE DISPOSED OF.—TO BE SOLD, OR LET, THE UNEXPIRED TERM OF AN IRONWORKS IN CUMBERLAND,** comprising about 14 acres, held under a lease, at a nominal rent, having six years to run, consisting of a blast furnace, with blowing engine and hot blast apparatus; forges and mills for rolling bars, sheets, and boiler plates; and a tin-plate work, capable of producing 400 boxes per week; also, 11 workmen's and two excellent managers' houses. The forges have the advantage of both steam and water power; and the whole work is most eligibly situated close to a railway, a branch of which goes into the work, and with every facility for the cheap supply of argillaceous ironstone, coal, and hematite ore. The above is in excellent condition, and may be immediately put to work at a very small expense.

Also, together or separately, a FREEHOLD FORGE and ROLLING MILL, on the immediate neighbourhood of the above, consisting of a complete set of rolls for puddled and finished iron, Shingler's hammer, shears, &c., worked by a steam-engine, and capable of producing 50 to 70 tons of bars weekly.

Apply to Messrs. McEwan and Auld, accountants, Glasgow; Messrs. Wm. Bird and Co., London or Glasgow; or PETER CAMERON, Esq., Whitehaven.

**ANTHRACITE COAL.—TO BE LET, for a term of years, all the valuable SEAMS OF ANTHRACITE COAL** lying under the Farm of Cresswell, in the parish of Lawrenny, county of Pembroke, containing upwards of 300 acres. The above coal is of superior quality, and conveniently placed for shipment, being situated on a branch of the Milford Haven, within a short distance of the terminus of the South Wales Railway.—For further particulars, apply to T. M. MARSHALL, Esq., 1, Lancaster-place, London; JAMES SUMMERS, Esq., Haverfordwest; or Mr. JAMES WILSON, mineral surveyor, &c., Underwood, near Haverfordwest. Underwood, Oct. 26, 1855.

**TO BE LET, ON A ROYALTY, all the various SEAMS OF COAL** in the EWLOR HALL ESTATE, near Hawarden, in the county of FLINTSHIRE, containing 42 statute acres, or thereabouts, and comprising about 21 ft. thick of coal of the undetermined celebrated steam coals:—viz., The Hollin Mine, 7 ft. thick; the Brassey Mine, 3 ft. thick; the Main Coal, 11 ft. thick; or thereabouts. The situation of this estate for a colliery is most eligible, and the quality of the coals well known, being bounded on the north by the Chester and Mold turnpike road, and within a very short distance of the Mold Line of Railway, besides the advantage of a gradient in favour of a load down to the River Dee.—For terms of leasing and further particulars, apply to Mr. J. DAGLISH, mining engineer, St. Helen's, Lancashire.

**TO BE LET, ON LEASE, a valuable STEAM COAL COLLIERY** at RESOLVEN, Vale of Neath, Glamorganshire, under Tylwyd and other lands, containing 600 acres, or thereabouts. A section of the several seams of coal, iron mine, blackband, and fire-clay, underlying the above property, has been made. Levels, headings, and stalls have been opened upon the coal vein standing No. 7 in Section, and the coal thoroughly proved. It has a good top roof (requiring little or no timber to prop it up), as will be seen from inspection; the bottom is free from pucking, and it has been proved to be FREE from the OBNOXIOUS FIRE DAMP, which is so destructive and expensive in working collieries. The rise of the strata extends right into the extremity of the property, and is very moderate, being not more than 3 inches to the yard, consequently giving good and cheap drainage to the whole of the workings. The levels most distant only about 600 yards from the Vale of Neath Railway, and an excellent railroad has already been constructed, to connect the property with the said Vale of Neath Railway, close to the Resolven Station; and arrangements have been made for siding accommodation for the traffic of the colliery. The openings upon the No. 7 vein would enable a lessee to work immediately a large quantity of superior steam coal.

The well-known RESOLVEN VEIN also lies under the above property, and is No. 9 in Section; this vein produces the "Resolven Steam Coal," which stands so high on the Admiralty List, and is used for transatlantic navigation. It crops out upon the property, within about 150 yards of the Vale of Neath Railway, and is the lowest coal vein workable above water level upon the said property.

The other coal veins that crop out to the surface may all be worked at the same time, being in all NINE SEAMS OF SUPERIOR STEAM COAL, affording an opportunity rarely to be met with of carrying on a colliery upon a large scale, at a moderate outlay. There is also workable, by level, a SUPERIOR VEIN OF FIRE CLAY, 4 ft. thick, under the property.

The whole of the level measures (which are now being worked at a short distance higher up the valley) are within available distance under the property.

Resolven is distant about six miles from Neath (at which port dock accommodation is now being provided), and about 12 miles from Swansea. The surface may be let with the minerals, if desired.

Applications to treat to be made to the proprietor, Mr. WILLIAM JONES, Tynrhedol, near Neath; and Messrs. LLEWELLYN and RANDALL, solicitors, Neath, of whom plans of the property and sections of the minerals may be seen.

**FOR DRAINING AND OTHER PURPOSES.—LEVELS OF FIRST-CLASS WORK,** consisting of a 10 in. telescope, adjusted by rack, sun shade, parallel plates, mounted on tripod stand, or jointed legs, for use in a coal pit.—To be had of the maker, JOHN DAVIS, optician, Derby.

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